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November
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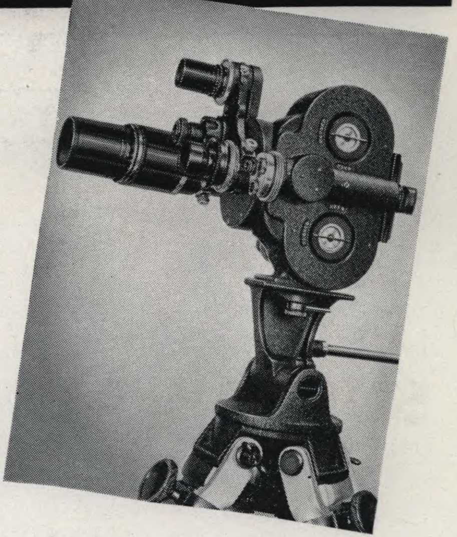

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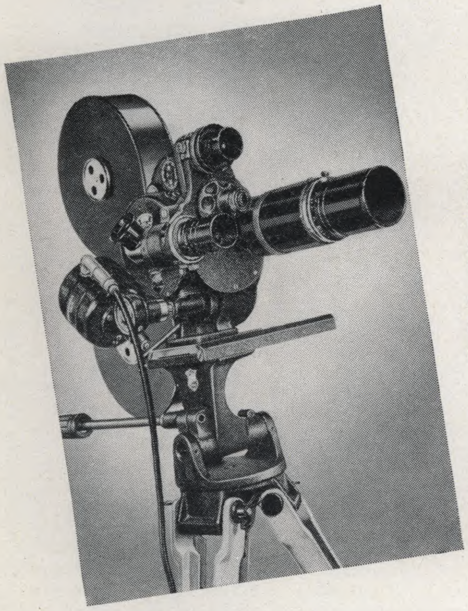

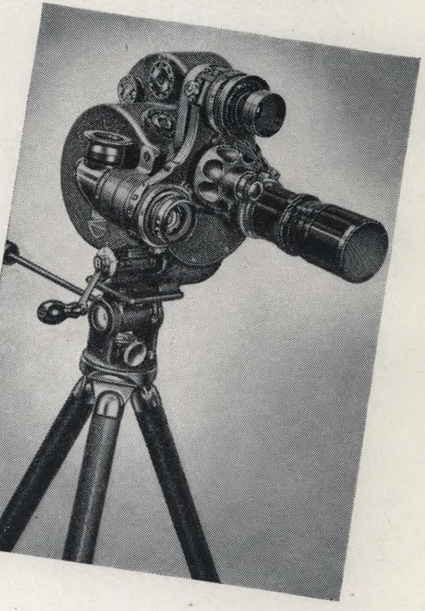

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THE MOTION PICTURE **CAMERA** MAGAZINE

VOL. 22 **NOVEMBER, 1941** **NO. 11**

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The Front Cover

Did you ever wonder how they make shots in which the camera apparently rides up or down in an elevator with the actors? Here's how it's done: the players ride the elevator, and the camera and its crew "follows" them, riding a big camera-boom. In this still by Harry Osborne we see Director of Photography Phil Tannura, A.S.C., (at left on crane) filming a scene for Columbia's "Boston Blackie's Confession," while Director Edward Dmytryk looks on from the tall ladder.

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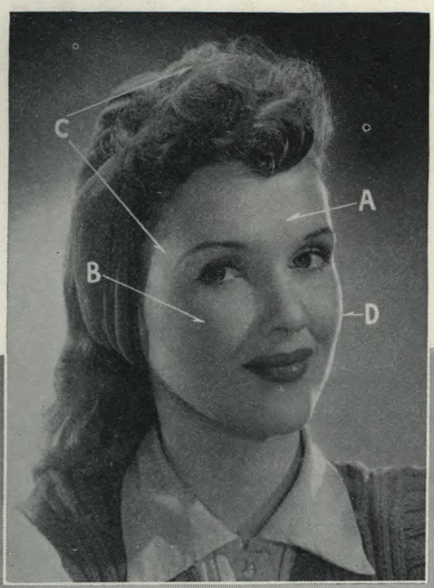
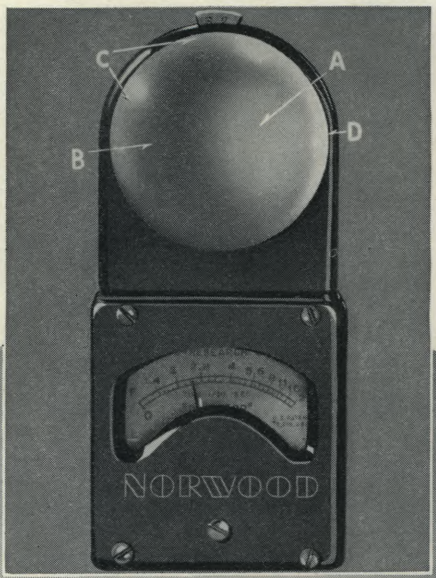
The New NORWOOD *Exposure* METER

(U.S. Patent No. 2,214,283)



A KEY LIGHT
B FILL LIGHT
C BACK LIGHT
D KICKER

All light that illuminates the subject also registers on the meter



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GASPARCOLOR Comes To Hollywood

By ALVIN WYCKOFF, A. S. C., D. Sc.

FOR a number of years we in Hollywood have heard, in trade-paper news items and occasional all-too-brief abstracts from foreign technical papers, of a three-color process known as "Gasparcolor," which was being used in pre-war Europe's film centers. Shortly before the start of the conflict, the first examples of George Pal's "Puppetoons," screened under the auspices of the Academy of Motion Picture Arts and Sciences, gave us our first glimpse of Gasparcolor on the screen. The results even then indicated that if the process were brought to America, there might well be a new and worthy contender in the three-color field.

Today we learn that Gasparcolor *has* come to Hollywood where it is being launched with adequate financial and technical backing, with such well-known figures as George Converse as President, Captain James Roosevelt as Vice-President, and A. J. Guerin, A.S.C., as manager.

Essentially a printing process, Gasparcolor is today available in both two-color and three-color versions, for direct 35mm., 16mm., and 16mm.-to-35mm. color enlargements. Based on the use of a special, dye-coupler reversal-type positive film, Gasparcolor prints can be made in any standard black-and-white film laboratory with only minor modifications of methods and equipment, and with a remarkably full range of control. No form of imbibition or color-flotation is used.

The Gasparcolor process is a product of the scientific mind of one of Europe's foremost color researchers, Dr. Bela Gaspar. Conceived and perfected in Gaspar's European laboratory, the process has now been adapted to American standards of equipment, methods and quantity production. Gasparcolor raw stock is manufactured in the United States exclusively, and is available in any desired quantity and guage. The manufacturing process incorporates the color dyes in predetermined quantity and quality, and in both three- and two-color stock.

The two-color stock has two emulsions, one on each side of the celluloid base. These consist of a normal reversal-type silver emulsion with the addition of blue dyes on one side, and a mixture of red and yellow dyes in the emulsion of the other side.

The three-color stock, as it is manufactured now, has two layers of dye—magenta and yellow—added to the silver emulsion on one side; the silver emulsion of the other side carries a layer of blue-green dye.

There is no intricate mystery in the manufacture of the raw stock; any manufacturer of motion picture film can produce it, thereby opening his participation in the color field by supplying a special stock to the industry.

After separation negatives have been made either direct in the camera or from a master Kodachrome original, intermediate positives are made by printing the separation negatives on black-and-white fine-grain stock. These intermediate positives are then used to print on color stock.

If it is desired to reproduce in two colors, the intermediate positive made from the blue separation is printed upon the red layer, and the intermediate positive from the red separation is printed upon the blue layer.

If the three color process is desired, the intermediates from the red, green and blue separations are printed on the blue-green, magenta and yellow layers respectively. The printed color stock is then developed.

The printing lights are determined as they are in black-and-white practice and regulated in the same manner, as the final dye-image is controlled by the density and gamma of the silver image.

After development and washing, the film is fixed, conducted through a dye-coupler bath, washed, and in the subsequent solution the residual silver solution is destroyed. The film is again fixed, washed and dried.

The resulting color film is a base covered with gelatin containing the pure dye-image without any silver whatsoever, except in the sound-track.

The sound-track is redeveloped before the final fixing by the aid of a simple device, consisting of a small wheel with a concave profile, that applies a redeveloping solution of a fairly thick consistency over the area of the sound-track.

The quality of the final dye-image is controlled through the various stages of the process by the initial silver image, the quality of which is in turn controlled by the technique employed to control any black-and-white image.

The final dye-image is a composite image consisting of two or three dye-part images. To secure the final print, these images must be printed in perfect register on precision step-printers equipped with registration-pins. Another requirement of the printer is that it should be equipped with a constant light source that can be regulated by a variable shutter, or changing aperture, or other reliable mechanical method that will be effective in the required changing of light-intensity.

There is also available an optical skipping-printer for the purpose of separating every other negative image in the case of the alternate-frame, single-negative two-color used in cartoons etc., printing alternate frames, or every third image in the case of three-color cartoon negatives, printing every third frame, in order to get the color separations as consecutive images on two or three separate films, respectively, to be printed onto a single color-film position in register.

In all other respects, a laboratory using the Gasparcolor process would use the same equipment and meet the identical requirements of any efficiently conducted black-and-white processing laboratory.

The optical quality of the finished print is smooth and transparent, devoid of any objectionable grain, as the size of the dye particles that combine to form the image is only a fraction the size of the silver grain. Although the dye-image reproduces faithfully the silver image, thereby also reproducing the individual silver grains by forming the composite image in several overlaying part images, the definition of the composite image is at least equal to that of black-and-white, and in many instances renders finer tones than those of the black-and-white film serving as the intermediate positives.

The viscosity of the emulsion of the Gasparcolor stock is constant and identical. The coating is accomplished and regulated with the same technique and machinery as with normal black-and-white. Thus a fluctuating density cannot occur unless a mechanical disarrangement takes place in the regulation of the printing process.

For obtaining the master negative, any 35mm. three-color camera that can produce a rock-steady image, or any 16mm. camera such as the professional Berndt-Maurer, Bell and Howell, or Eastman Special, using Kodachrome, will be adequate and render good results, according to the operator behind the camera.

Excellent separations and blow-ups from 16mm. Kodachrome to 35mm. Gasparcolor are being obtained with definition comparable to original 35mm. separations of equal original quality and gradation.

In making enlargements from 16mm. the master Kodachrome is never projected or otherwise handled beyond absolute necessity. No attempt is made to lacquer the original or to correct any defect that might appear. All corrective work is done on subsequent negatives and positives, including the printing of edge numbers, thus reducing to an absolute minimum all defects that might appear in the 16mm. master.

A visit to the Hollywood Colorfilm laboratory in Burbank, which is now actively in production with 16mm. and 35mm. Gasparcolor, revealed the process technique of Gasparcolor and proved to be absorbingly interesting as well as instructive, and a revelation in discovery of a color process that was well known in Europe before the war, but comparatively new to the United States.

All the precision equipment at this laboratory is the finest precision motion picture machinery that mechanical skill can produce, and carries the well-known name of "Duplex."

Tests, temperature, and control of developing solutions is by pH control. Bleaching baths are checked by colorimeter. Gamma-strips are run frequently and checked by an electronic densitometer. The control of printing-lights is by electronic voltage regulators using direct current. Light-tests are made on the visual sensitometer.

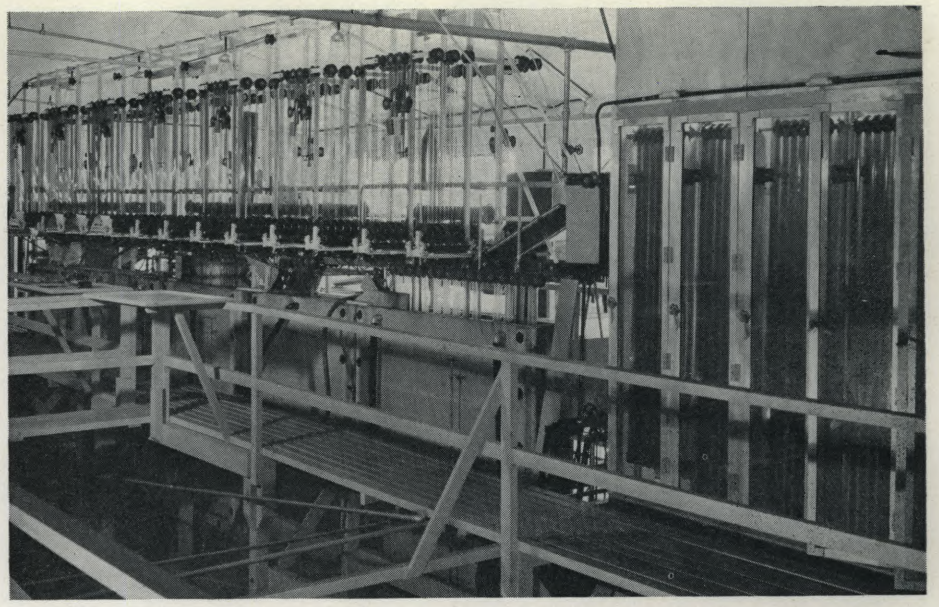
It was in the projection-room that the amazing beauty of Gasparcolor translations of the original subject were revealed.

From two synchronized 16mm. projectors, placed four feet apart, an original subject photographed on 16mm. Kodachrome stock was projected from one machine, while the same subject, duplicated on Gasparcolor stock, was projected from the other.

The subject was a musical short. Colorful costumes, settings and beautiful girls. It was very well done. The photographic technique was smooth, evenly balanced and beautifully lighted. Smooth cutting from long- and medium-shots to close-ups, properly timed wipes, fades and dissolves. For a short subject in color it was a delightfully entertaining success.

The Gasparcolor reproduction was true in every detail, the exception was in favor of Gasparcolor's brilliance, projected with lamps of the same voltage; both projection machines were identical.

This demonstration was followed by one of the same subject reproduced with the Gasparcolor two-color process. This revealed a surprisingly fine skin texture and better definition of halftones than has been seen in other two-color processes. The quality was brilliant, smooth and sharp. The two-color version of Gasparcolor represents really more than the cutting of the spectrum into equal halves. There is a definite, controllable, and reproducible dichroic effect, rendering good facial skin-color with red lips, and surprising separation of green and blue, affording definitely beautiful results that can be used to increase the value of the subject-matter suited to two-color photography, and of course at less expense than the three-color reproduction.



Developing-machine for Gasparcolor film in the laboratory of the Hollywood Color Film Co. It will be noticed that this is essentially a standard developing-machine, as neither flotation nor imbibition are employed in this process, which uses special, reversal-type colorfilm.

The black-and-white reproduction from the original color was superior to any attempt of black-and-white exposure through a system of filters attached to the camera lens. There was a roundness, and depth of focus, apparent only in good color rendition.

The next demonstration was a projection of the same subject enlarged to 35mm. in three-color Gasparcolor. The result was amazing. The color, sharpness, and sound had lost none of the excellent quality of the original. There was a difference, but again it seemed to be in favor of Gasparcolor. The color-balance, obtained through control in making the separations, was perfect. Shadow-detail was brighter and more luminous. Skin-texture was smooth and delightful, and the highlights were a soft and delicate balance for the lower key of lighting.

The reduction process from 35mm. to 16mm. of black-and-white from color, or black-and-white direct, and from 35mm. to 16mm. and from three-color to two-color, or three-color was entirely successful, producing a 16mm. product of excellent quality without impairing the fine range and tones of the 35mm. sound and picture. The production possibilities of any producing unit seem to be unlimited through this channel of Gasparcolor.

To the commercial advertiser, who needs a number of prints of a 16mm. business film, there is the unquestionable advantage of being able to display his product in its true tempting colors. The wrapping of merchandise, or the merchandise itself, may be shown as it would appear on the shelf.

Documentary films would be enhanced by the added documentation of color, and the lasting quality of the dyes used in the positive film will make for prints of permanent record.

For visual Education, many scenes in black-and-white become just so many pictures, but when the object of the lesson is presented in true color it is remembered. The training for various vocations, and especially today, military training in all its phases would be simplified, and the subject of the film would be better retained mentally if instructional films were presented in color.

In enlargements from 16mm. Kodachrome the result is not limited to a lighter, or darker, product than the original, because the application of the method of correction in Gasparcolor is so pliable that variations of shade are controllable. There is no indication of the unpleasant contrast which often results in the usual 16-to-35 enlargement.

Thus it may be concluded that in the Gasparcolor process, the industry has gained a needed, and potentially very valuable method of producing color films for virtually every purpose for which either 35mm. or 16mm. motion pictures are used. Most significant, too, is the fact that this process is the first commercially-available color system to offer the possibility of processing color in existing black-and-white laboratories. Sooner or later, so all authorities agree, the motion picture industry will swing to an almost 100% color basis: and when that happens, it seems scarcely possible that any single laboratory or group of specialized color-film laboratories could successfully handle the huge volume of footage necessary to handle the entire industry's output. But if the industry's present black-and-white laboratories, with only minor modifications, could, as in the Gasparcolor process, handle color, the universal acceptance of color would certainly come about much sooner. **END.**

Proving The New Norwood Exposure Meter On Production

By WILLIAM STULL, A.S.C.

THE introduction, some two months ago, of the radically different new Norwood "Director" three-dimensional exposure-meter for professional cinematography has been termed by some experts the first basic advance in the meter field since the advent of the first photocell types nearly a decade ago. While this may perhaps be a somewhat over optimistic viewpoint, it is certainly true that this new instrument, not only because of its radically novel operating principle, but because it is the first exposure-meter designed solely for the use of the professional cinematographer, is one of the major cinetechnical developments of the year.

However, the truest evaluation of any new device or material is not the one made in the first excitement of its initial bow, but the one made after it has been put to the proof of practical use on actual studio production. The Norwood meter has now reached that stage: a majority of the cinematographers at the studio where it was first shown (Metro-Goldwyn-Mayer) have been using these instruments for some time on actual production. Furthermore, tests of the meter in other studios have led to the decision on the part of one major studio to adopt the meter throughout, and it has also been put to successful use in that most exacting of all cinematographic fields—the production of short-schedule, short-budget "quickies." Therefore from the reactions of some of the men who have tested and proven the new instrument, we can gain an accurate measure of its practical value.

The Norwood meter in its basic design follows the systems which actual practice throughout the industry has proven the most practical for studio use: it is built for incident-light readings, rather than measuring reflected light. While the reflected-light system has, because of its simplicity, been adopted as the general standard for amateur use, it admits variables—such as varying patterns of reflectance-values in the scene being scanned—which limit its convenience and accuracy as a professional tool. Similarly, the use of a conventional type of meter for taking incident-light readings under modern studio conditions also admits of some errors in that the flat surface of the meter's pick-up cell does not always give a proper evaluation of the angular characteristics of the light being read. For example, distance and unit intensity being equal, conventional readings of front and cross lightings will be the same, since in each case the ordinary meter would be directed at the light: yet in practice, increased exposure is needed to produce a normal result with the cross-lighting.

The Norwood meter compensates for angularity in lighting by means of a translucent, hemispherical dome of ground celluloid placed over the photocell. This three-dimensional pick-up closely approximates the three-dimensional character of the average subject. The photocell, measuring the light transmitted by this hemispherical collector, can therefore give a reading in terms of photographically useful light actually affecting the subject. In addition, each individual meter is precision-calibrated to coordinate with the film and processing standards its actual owner will encounter in the course of his work.

Second only to Karl Freund, A.S.C., who collaborated with Norwood in refining Norwood's "prevailing illumination" meter system for practical studio use, Ray June, A.S.C., has probably made the most extensive production use of the new instrument. He says, "I have used the new 'Director' meter throughout my latest picture—and as that picture was made with W. S. Van Dyke, who is probably the industry's fastest-shooting top-flight director, that means that the meter was put through some extremely rigorous tests of its production utility, as well as of its strictly technical accuracy. The results convinced me that the new device is a genuinely worthwhile accessory for studio camerawork.

"There's one thing that ought to be very thoroughly understood, though. It seems that every time a new device of this sort is brought out, some people mistakenly jump to conclusions and expect the gadget to do more than it possibly can. In this case, just because the Norwood meter will give you a scientifically accurate reading of the overall exposure-value of *all* of the lighting on a player, rather than a simple measurement of key-light, don't expect it to tell you whether your lighting is in balance or not. It won't do that; for that matter, I don't think any meter will ever be made which can do it! I hardly think any of us—even the least camera-conscious of studio executives—would want a device that would, for that would eliminate the individualized artistry which makes cinematographers creative artists rather than mere skilled technicians.

"But this meter, properly used, *will* take over the full responsibility for maintaining your exposure-levels on an even keel throughout, and give you a chance to make fuller use of your individual methods of light-balancing which, after all, is your main job. But if the meter is to do that, the man who uses it has to trust it; there can be no moments of thinking, 'well, the meter may be wrong, so I'll add a little here or come down a bit there, even if the meter says it's all right now.' If you do that, you might just as well not have a meter at all, for you're certainly not using it. And my experience has been that the Norwood meter is so dependable that you can follow its guidance implicity, even at times when the meter-reading disagrees with your own judgment.

"There's nothing sensational about my method of using the meter; I simply follow the suggestions laid down by the manufacturers. I balance my lighting on set and people visually, in the usual way. When my lighting is completed, I take my meter-reading at the key position (or positions) of the principal player, pointing the hemisphere of the meter directly at the camera. Since the meter reads directly in *f*-stops, all I usually have to do then is set the lens-aperture at the stop indicated by the meter, and shoot. If the lighting of the scene isn't in balance, that's my fault: but the exposure-level of the scene will be perfect.

"The fact that the meter reads directly in *f*-stops, rather than in foot-candles or candles per square foot or any other non-photographic terms proved especially valuable in this picture. We had to work unusually fast for a major-studio production: director Van Dyke is always a speedy shooter, and on this one our schedule was rather short, so we had to average some thirty to thirty-five set-ups per day. And Van Dyke's technique calls for a lot of camera-movement, and few, if any, 'protection-shots,' since he virtually cuts his pictures with the camera.

"Accordingly, to provide a better margin of photographic safety in making these dolly-shots, we photographed nearly all of the picture (except, of course, extreme close-ups) at comparatively reduced apertures—around *f*:3 and smaller—to gain added depth of field. So it was very handy to be able to get our meter-readings directly in *f*-stops by simply holding the meter in its place and seeing that the reading on its dial was *f*:3.2 or whatever stop we had decided was necessary.

"Where there are rather large sets, I've found this meter very helpful in checking the contrasted lighting of the various planes of the set, so that this balance always remains constant. For example, I know I want the background at a certain level, the middle distance at a different level, and the foreground, where the players work, at yet another level. The first time, I balance the lighting by eye. Then I check each important plane—each key position of the actors, for that matter, if they're to move around much—and make a note of it. Then on every succeeding shot I know I can get my basic lighting roughed in quickly if I just place the meter against the backing, and adjust the illumination there to the predetermined reading—say *f*:2.6—then place the meter in the contrasted middleground and get my desired reading there — say *f*:1.4 — and finally bring the foreground lighting to the value I know will balance—say *f*:2.8. It's a really worthwhile time-saver, and makes for more consistent results.

"In the same way, it sometimes happens with the best of us that we may feel our lighting sliding out of balance. Sometimes it really is; sometimes it's only a visual illusion because our eyes or minds are tired. But the meter provides an excellent check for that. I know just what ratio I want between highlights and shadows to produce a normal lighting-balance on my principals: well, if I feel my visual balancing isn't quite accurate, I check it by meter. First I take the usual overall reading, to make sure the overall level is right. Then I can kill the key-light, and take a separate measurement on the filler light; after that' I can take a similar measurement on key-light, backlight, and so on. If these individual readings aren't normal, I can easily correct whichever element the meter indicates is above or below its proper level for my normal balance. Then I can either readjust the whole lighting up or down the scale to make sure my overall level is at the desired normal, or I can simply readjust my lens aperture to match the meter's indication: in either event, the negative-exposure will be normal—and so will the lighting-balance. If you've ever tried to light a scene when you weren't quite sure whether or not your eyes and nerves were playing tricks with your judgement, you'll realize what a comfort this sort of assurance is!"

At the Paramount Studio, Camera Chief C. Roy Hunter has decided to standardize on the Norwood meter throughout the studio, supplying a meter to each production unit as a basic part of the photographic outfit. "A modern, fully professional type of meter," he says, "is today almost as essential a part of a cinematographer's photographic outfit as the camera or tripod. There was a time, not so many years ago, when each cinematographer provided his own camera; today, we recognize that it is the studio's responsibility to provide the camera and all necessary accessories. The modern exposure-meter is certainly one of those necessary accessories, so of course Paramount is supplying them to its directors of photography.

"Our choice of the Norwood 'Director' meter climaxed a search, extending over several years, for a meter which in our estimation would completely meet the specialized requirements of studio directors of photography. By every practical and theoretical test to which we could subject it, the meter proved itself so completely what we were looking for that we have had no hesitation at all in going forward with our plans for equipping all of our staff with these instruments.

Talking it over. Paramount's Camera-Chief C. Roy Hunter (left) and director of photography Theodor Sparkuhl discuss the first of the new Norwood meters to be used on production by the Paramount Studio.

"The first meter is already in successful use on actual production, in the hands of Theodor Sparkuhl, A.S.C., who is directing the photography of 'Dr. Broadway.' Two other meters have already been delivered, and the rest will be delivered as soon as we have completed some detail tests with the present instruments to determine the precise calibration scale which will perfectly match the meters to our laboratory requirements.

"Sparkuhl's production has not as yet been shooting long enough to give us a big enough backlog of experience so either of us would feel justified in commenting on the exact methods of using the meter. But we can already say that the results have more than justified the confidence we have placed in the instrument. The picture is a melodrama—full of tricky effect-lightings—and even in the first few days of shooting the uniformity of Sparkuhl's negative has been extremely gratifying.

"For many years there has been a controversy within the industry as to whether time-and-temperature negative processing or use of the test system was best. If for any reason at all there are likely to be irregularities in negative exposure, without doubt the test system can be a great life-saver. But if the cinematographer has a means of insuring that his negative exposure-level remains mechanically uniform, the corresponding uniformity of time-and-temperature processing is obviously more efficient. We believe that this new meter will give our cinematographers an accurate means of keeping their exposure-values uniform, while at the same time leaving them even more free than before to control their lighting-balance to suit each individual taste. And, granting of course, as you must in any major studio today, that you start with a group of directors of photography who really know how to balance lighting, there is a very great advantage in any system which will leave them free to control the effects they get from the set, so sure that their negative will receive technically normal exposure that neither they nor the men in the laboratory have to give even a thought to modifying (and perhaps ruining) those effects by trying to force or to save the negative in development.

"There is an additional advantage to our policy of having the studio supply these meters. This way, we can standardize on a single type of meter, instead of the heterogeneous assortment of different types inevitable when each individual buys his own. And we can standardize the checking and maintenance of the meters. This, coupled with the extreme precision used in manufacturing and calibrating these meters, should give the men who use them more implicit confidence in them—and accordingly, they should use them to much better effect. If you can be absolutely sure that when your meter says *f*:2.8 it really means *f*:2.8 and not *f*:2.6 or *f*:2.9, you are much more likely to follow the meter's reading than would be the case if you had any possibility of doubting it."

But perhaps the most searching test of all that the Norwood meter has yet undergone was that recently provided by Jack Greenhalgh, A.S.C., who after familiarizing himself with the meter in the Photo Research Corporation's experimental studio, used it while photographing an extreme short-schedule feature for the Producers' Releasing Corp. "That picture," says Greenhalgh, "really

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Corrective Make-Up Can Help The Cinematographer

By JACK DAWN

Head of Make-Up Dept.,
Metro-Goldwyn-Mayer Studio

SINCE the idea of "corrective" make-up was introduced some years ago, it has been the focal point of frequent controversies between cinematographers and make-up artists. Most of this disagreement, I am sure, has been caused because not only cinematographers, but also some make-up men, have not had a clear understanding of what corrective make-up is, what it is intended to do, and how it should be applied. The result of such misunderstanding, if it is the cinematographer who does not understand, is likely to be that he refuses to photograph something which could actually help him; if it is the make-up artist who does not understand, the cinematographer is likely to be faced with a caricature of a corrective make-up which is actually worse than none at all. Therefore I feel that a clear discussion of the means and aims of corrective make-up should be of benefit to all concerned.

When a cinematographer photographs a player, he literally paints a picture on his emulsion, using light and shade as his brush. He has two main objectives: first, to suggest an illusion of three-dimensional roundness on the actually flat, two-dimensional screen. Second, to enhance the good points of the player's appearance, and conceal the unfavorable ones.

In both instances, his tools are light and shade. To conceal an undesired protruding area, such as, for instance, a chin that is beginning to sag, he tries to keep that area in shadow. To eradicate wrinkles, he throws additional soft, very flat light into them to light up the concavities.

In applying a "corrective" make-up, the make-up artist uses essentially the same means. Only instead of actual light and shadow, he uses lighter or darker applications of make-up to produce essentially the same result. In the case of the sagging chin, he throws it, photographically, in the shadow by applying a slightly darker shade of make-up to that area. In the case of wrinkles, he produces the effect of stronger, flatter lighting by applying a lighter shade of make-up to that area, so that even though the wrinkle, being in a physical depression, receives less light than the surrounding area of the face, it will, because of its lighter tone, reflect comparatively more light, bringing its photographic value into closer parity with the rest of the face.

If the corrective make-up is properly applied, it can be a really worthwhile help to the cinematographer's efforts at "corrective" lighting, for a well-applied corrective make-up should have much the same corrective effect regardless of the angle at which it is viewed or photographed, whereas the "corrective" lighting changes its effect in varying degrees as the actor moves about. Used together intelligently, these two systems of correction should supplement each other perfectly, just as the still-photographer's lighting and the subsequent retouching done on his portrait negatives supplement each other. Corrective make-up is essentially a matter of skillfully retouching the subject before, rather than after the exposure is made.

But to do its work, the corrective make-up must be applied skillfully, and with a real understanding of what the make-up artist and cinematographer are trying to accomplish. As a make-up artist myself, I must admit I am embarrassed by some of the caricatures which result when an unskilled make-up man tries to use this technique and does it crudely.

Perhaps the most common fault is permitting the shadowing or the highlighting to spread over adjoining areas where it is not needed. This often happens when the make-up man, after applying his corrective coloring, attempts to blend it in with the adjoining areas by stippling, patting or even rubbing the make-up. This may blend the two adjacent shades: but it also spreads the corrective coloring so broadly that all its effect is lost.

As an example of this, take an ordinary facial wrinkle. If you look at it closely, you will see that it is virtually a little canyon in the skin, fairly deep and usually quite narrow. Speaking photographically, the reason the camera sees it as a canyon is because the higher areas on both sides of the wrinkle reflect a great deal of light, while the sides and bottom of the canyon, being in the shadow, reflect much less light. If we throw a strong, flat light straight into the canyon, we light up these ordinarily shadowed areas, and as both the wrinkle and the adjacent areas reflect substantially the same amounts of light into the lens, the wrinkle is apparently erased.

A good corrective make-up does the same thing. Only, instead of using light itself, a lighter, more reflective shade of make-up is applied to the bottom and side-walls of the little canyon, so that their reflectivity is brought to a level close to that of the adjacent flat skin-areas.

But if the make-up man tries to blur the highlighting into the tone of the rest of the face, or applies it too broadly, what happens? The highlighting, instead of being confined to the depressed areas, where it is beneficial, is spread to a greater or lesser extent over the adjoining areas, where it is emphatically not needed. As a result, we are brought back to our original starting-point again: the wrinkle and its surrounding skin-area have the same reflective value, and the wrinkle, being physically recessed, receives and reflects proportionately less light to the lens than does the surrounding flat area, so it still photographs as a wrinkle. In fact, we're probably worse off than we were at the start, for we've produced a blurred streak of lighter tone than the surrounding make-up, somewhat wider and longer than the original blemish we sought to correct. No wonder the director of photography takes one look at the result and declares loudly that he can't and won't photograph such a streaky caricature or a make-up!

The same thing naturally can and does occur when we use shadowing to tone down a protruding area. The darker-toned make-up must be placed with precision, on exactly the areas that we want to subordinate, *and nowhere else.* Otherwise we'll again reach the same result—a blob of darker make-up which not only does *not* correct the fault it is intended to remedy, but which photographs as an obvious dark spot or streak.

To do a really correcting job of corrective make-up, the make-up artist must be exactly that—an artist, working with a good working understanding not only of make-up, but of photography, lighting, drawing and sculpture. Above all, he must apply it with the greatest of precision, in fine strokes, rather than broad, careless ones. If this is done, corrective make-up can very quickly prove its worth as a very positive help to good cinematography.

The same technique can be applied to color make-up, whether for Technicolor, Kodachrome, or any other process. Its value in color is ever greater, for here we have not only light, shade and form,

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MOVIE BARNSTORMERS

By H. WILLIAM MOORE

"HOW many feet have we gotta shoot tomorrow?" I mutter to the director, Bob Mann. It's three A.M. and we've tossed out the anchor for the day and have retired to the three-story frame hotel that hangs over the main line of the Pennsylvania railway. This town happens to be wedged in the Allegheny mountains; the name makes little difference for it could easily be any hamlet where a community motion picture is being exposed to the surrounding terra. The director yawns and gropes for his clip-board with tomorrow's shooting schedule.

"Let's see . . . two hundred . . . three-fifty . . . five . . . six . . . seven hundred feet," he yawns again, then throws the clipboard back to the night. I groan and stretch out on the grimy rug and try to recall what series of circumstances ever shoved me behind a 16mm. motion picture camera and into the heart of "No Man's Land"—a section of livelihood between the amateur and professional ranks . . . . .

. . . . . I remember something about an advertisement that expressed dire need for cameramen and directors . . . I answered and my contract read "Director-Cameraman." I felt pretty good . . . then a nightmare of productions followed, each averaging from two to three thousand feet in length; all in Kodachrome and recorded on the emulsion strip with Bell & Howell 70-E cameras. One camera was capable of a dissolve; the others you had to cut and fade and cut and fade and cut and fade . . . Yet, professional results had to be obtained, believe it or not. The picture is sponsored by the Chamber of Commerce or some other leading civic organization and they're right proud of their village, regardless of what I might think of it. All the scenic points must be glorified and not "goryfied"; the merchants that have kicked in a thousand dollars to produce the epic have a right to expect their commercials to be "on the nose" in focus and exposure. Although at times when they expect a second "Gone With the Wind" I ponder the question if street-cleaning might not be a good profession after all . . . . .

Bob looks down on me through his fourth-production-day beard.

"We'd better turn in if we expect to throw those seven hundred feet in the can tomorrow. That means on the set at eight and working through until midnight or later, you know," he says encouragingly.

"Yeah, I know—all too well," I return. But something was boiling in the noodle. "Bob," I said. "Did you ever stop to think who has the harder job. We, in our field, or the directors and cinematographers in Hollywood?"

"That's easy," he grunted. "We have it plenty tougher."

"And your proof for the jury?" I prodded.

"All right," he returns, warming to the bait. "I'll tell you step by step what we have to accomplish and overcome, then you be the judge." Bob slides from the chair and angles over to the bed and sinks down.

("As if I didn't know," I mumbled to myself.)

Bob shot an orb at me but it missed. "Take it from the first," he began. "The first problem and the director's baby-by-adoption is to put the sponsoring organization right as to what we can and what we can't get on interiors . . . . ."

"Then when the cameraman gets in," I interrupt, "we have to tell the merchant exactly what he can get for his money and correct the over-zealous impressions spread about by directors in order to sell their commercial footage."

"Now wait . . ." he growled. "Who's telling this story?" And I shut up and listen to a story that is too old to my ears.

". . . . . many times," Bob continues, "the sponsor has the impression that we are shooting in sound, our camera is a Mitchell, lights cover everything from carbon arcs to dinkies, and the production crew is complete from script girl to 'In Charge of Production.'" Bob stopped and broke into a puddle of laughter.

"Let me in on it," I said.

"I was just thinking of the incident in Elkhart when the committee was waiting for the camera unit and one man finally rolls in with his model T coupe and with equipment bulging from sides and radiator cap," Bob said, and laughed heartily again.

"Sounds crazy—but oh so true," I added, then thoughtfully for a change, "I usually forget the big job you directors have to tuck away before we cameramen get in. Appease your committee and put 'em straight on the fact we have B & H cameras; two lenses, one a Taylor-Hobson 25mm. universal focus *f*:2.7, and the other a wide angle 15mm. *f*:2.8 in focusing mount used mostly for interiors. Then our two hundred feet of heavy cable that we run to the main fuse and switchbox; three boxes of portafloods that break up and give us a spread of six floods, each with three No. 2 photofloods. We have some trick battery clamps that dog on to the main line and usually ahead of the fuses—if we can gain permission to do so from the power company involved."

"I usually don't tell 'em all that," Bob cut in. "I figure by the time I sell a thousand dollars worth of commercial film footage that represents thirty-five or so leading merchants and factories in the town, select the stars of the picture and supporting cast—always keeping in mind the person must be chosen for 'box office' appeal more than looks and acting accomplishments — handle all publicity, movie-queen contests, advance ticket sales, notify every merchant of the hour we will be in to shoot his place, and try and convince the cast they must

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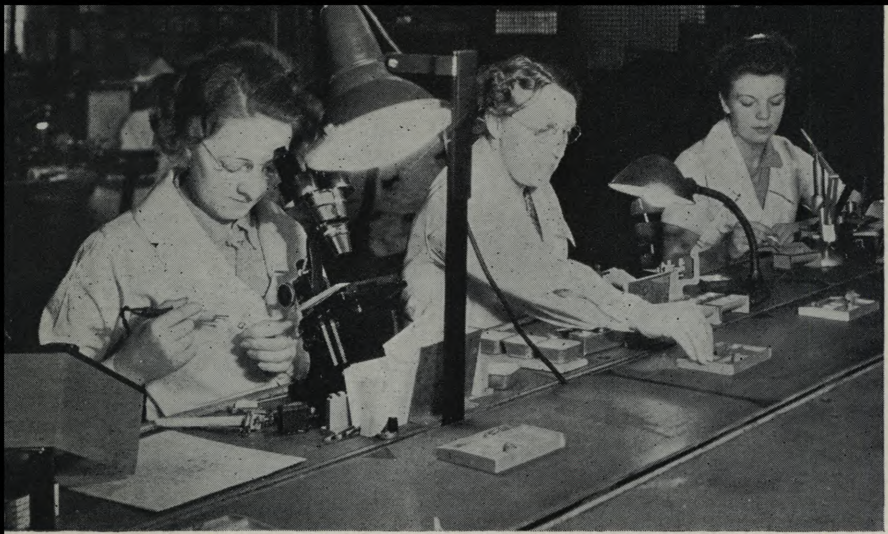
A few years ago we used to hear many a romantic tale about "barnstorming" aviators—those hardy souls who went from hamlet to hamlet with a rickety airplane of World War I vintage, held together with prayers and baling-wire and flown, as a rule with an angel under each wing and Lady Luck holding up the tail, giving the local citizenry their first taste of flying. We here in Hollywood seldom realize that there are the counterparts of these "barnstormers" on the fringes of the cinema profession, too. One of them here tells his story, which forms, we think, a very interesting contrast with the established procedure of Hollywood's "big business" film industry. THE EDITOR.



Dramatize the unsung heroes—and heroines—behind the product. (Photo courtesy General Electric.)

Putting "Interest-Value" Into Business-Film Scripts

By W. G. CAMPBELL BOSCO

IN many ways the 16mm. business-film technician has outstripped his partner, the business-movie "idea-man" and script-writer. From the strictly technical viewpoint of cinematography and sound, the better-class 16mm. business film can stand successfully on its merits in any comparison with 35mm. monochrome or color filmed for the same purpose. From the economic viewpoint 16mm. is, dollar for dollar, naturally far in the lead. But unfortunately far too many commercial pictures turn out lacking in "interest-value."

This is particularly true of those films aimed at the general public, and having as their purpose the influencing of that public's opinion favorably towards the product or service of the sponsor, but which fail in the largest sense because the presentation, lacking in imagination, fails to capture or hold the interest of the audience. Much of this lack of "interest-value" can be traced to an inadequate script; inadequate in that it is ill-adapted or awkward for use in a commercial picture, or that the scripter has failed to bring out the really interesting facts about the sponsor's business. The result, all too often, is the familiar "dry-as-dust" commercial movie. Yet it is a fact that there are very few industries and businesses today which do not contain somewhere within themselves the germ of an interesting audience-picture.

The motion picture that is sponsored by business, for business and about business should certainly not try to imitate the theatrical product; particularly, it should not over-reach itself in an effort to be entertaining in the sense of aping theatrical films. Rather, it should have a form completely its own. It will then be able to stand comparison, in the mind of the audience, with the theatrical product.

And that comparison is inevitable. Subconsciously, at least, the average audience will make comparisons, and if it sees in a commercial film a scene which has obviously "dramatic" intent but which lacks the quality and punch customarily seen in theatrical movies, the whole picture and everything associated with it (including the sponsor and his product!) suffers to some extent by the comparison.

It does not matter that that scene or picture may be, in view of their budget and production conditions, masterpieces of business-film making. The audience doesn't know or care that the facilities available to the theatrical producer aren't available to his less affluent business-film brother. It seldom differentiates between 16mm. and 35mm. Movies are movies to the average audience: they can't see behind the screen to the enormously differing conditions under which a theatrical and a non-theatrical film may be made.

The function of the commercial movie is, broadly speaking, to explain the "how" and "why" of something, and in so doing to stimulate an interest in, if not a desire for, the product or service of the sponsor. It should lift that product or service out of the ordinary by showing and telling what goes on behind the scenes to bring that product into being.

Nine times out of ten there is a very much more interesting story behind any business enterprise than the trite, hackneyed "stories" that are conventionally used to wrap up celluloid sales plugs. The secret of successful business-film scripting is to ferret out that really interesting story, and get it somehow on the screen.

How this is to be done varies with each picture. Sometimes a commercial script-writer will be well advised to prepare a very detailed shooting script, specifically indicating every shot, set-up and camera-angle. At other times, blessed with an imaginative production crew, he can confine himself to a comparatively brief outline, knowing that the shooting staff will be alertly able to fill in the vacant spaces between his hints.

Certain points of theatrical film technique can very well be applied to this problem. Many makers of travel-films, for example, have stressed the value of first impressions when filming some distant and unusual location. They have mentioned that if they can immediately film the sights which are new and unusual to their eyes during the first few days spent in that region, they're likely to come back with a really interesting picture, while if they allow themselves to wait too long before shooting, these same sights become so much a matter of course that they're often forgotten when shooting does start—much to the detriment of the final film's "audience-interest."

The same thought should guide the business-film scripter. In every factory or business there are features which, at first sight, will be novel, which make the visitor ask "what?" "how?" or "why?" If they interest you, they're equally likely to interest the audience. Make sure you get them on film, even if they may seem routinely uninteresting to the sponsor's representatives, who are necessarily more accustomed to them.

Too many factory sequences are dull and photographically uninteresting on the business-film screen. They don't have to be. Perhaps they are dull because they are filmed and narrated according to plans conceived by plant executives who are so familiar with factories in general that they don't see the things that are novel to the layman, but instead find interest in highly technical details the average layman doesn't understand. The business-film scripter, and to an almost equal extent, the camera crew, should consider themselves as representatives of the audience. Things which, there in the factory, make them ask questions, should certainly be put on

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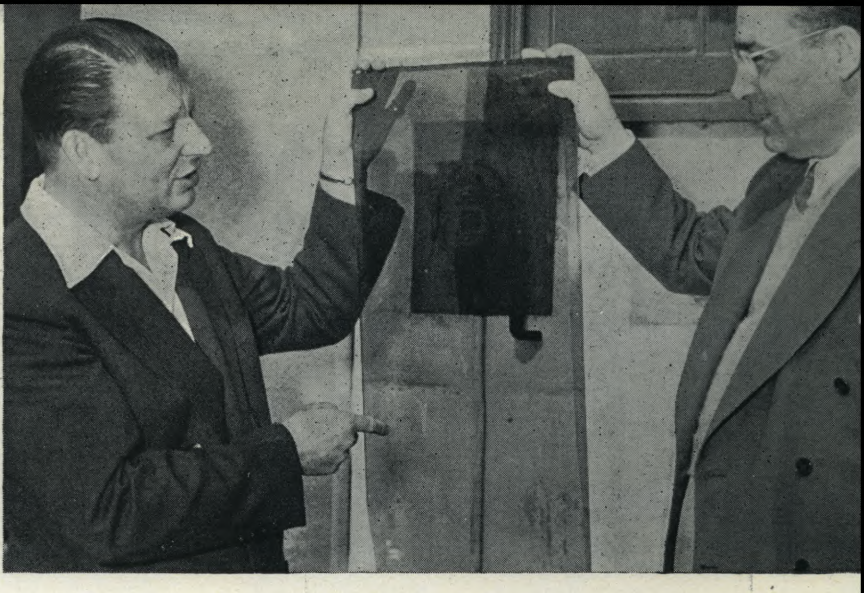
BLUE WINDOWS

By RUSSELL METTY, A.S.C.



Holt Lindsley (left) and Art-director D'Agostino inspect a pane of glass treated with the new coloring.

"WHAT d'you mean, Blue Windows?" piped a skeptical voice. "Exactly, just that! Windows that reveal a very faint trace of blue and act as a filter," I replied.

This new technique is being applied to the effects in the R.K.O. production of "Joan of Paris," directed by Robert Stevenson. It is the first American production to introduce Michele Morgan, brought from Paris by R.K.O.-Radio Pictures.

When I was handed a copy of the script, I found a scene that called for a set-up in the lobby of a hotel, showing Michele Morgan talking to a Gestapo agent. As she turns and looks through the window she sees her lover, Paul Henried, crossing the sunlit square.

Wondering if I had mis-read it, I read the scene a second time. No, I hadn't mis-read it. There it was and it read with the same understanding. There must be a mistake, I thought. I barged into Mr. Stevenson's office to call his attention to it and ask him if that was the way he intended it to be.

"You've guessed it right," he answered.

"But," I said, "that's shooting from inside out, and there's no magenta gelatin sheets big enough to cover those windows without showing patches."

"Sorry," said Director Stevenson, "but that's the scene I want, just like it reads. Sharp outside, sharp inside. It's your headache. It can be done!

"All right," I said, "I know it's my headache, and—I'll find out HOW it can be done!"

Days and nights, my headache grew into aching proportions: Spectral research, volumes of it.

"It can be done! It can be done!!"

Those words kept ringing louder as the days and nights wore on. Finally, they ding-donged into my thinking: Blue! Blue!! Blue!!! Maybe that'll do it!

I hastened over to R.K.O.'s Art Department and cornered Albert D'Agostino, the big chief of the department, and his assistant, Carroll Clark, and asked them to read the scene that by this time was commencing to wrap its tentacles around me in a strangle grip.

D'Agostino, looked up from his reading and asked, "Well what do you want me to do about it?"

"I want you to put blue optical glass in those windows," I answered.

With a roar, both D'Agostino, and Clark jumped out of their chairs. D'Agostino almost shouted. "Say, listen. Do you know what you're talking about; do you know that that kind of glass in sheets big enough to fit those windows would cost a lot of money, and have you any idea where it could be found, and how long it would take to get it? And if it could be found and we put it in those windows, what are you going to do when you go outside and try to shoot *in* on the reverse-shot? Nothing doing; we'd waste too much time changing the windows back to clear glass. Don't be silly. Find some other way to solve your problem. It's yours, isn't it? Find another way! It can be done!"

Ouch! Those ding-dong words again. They were getting me down. I went out of his office. I was wandering around the lot when I looked up and found myself passing the paint department; another idea dinged into my brain. I hustled into the paint shop looking for Holt Lindsley, who has charge of that department. I found him in his office. He looked up as I entered, but before he spoke he pulled up a chair. "Sit down," he said, "you look pale. Are you sick?"

"No I'm not," I answered. "But I will be if you don't help me out. Tell me," I whispered, "Can you make a lamp-dye with a faint trace of blue in it, maybe a little red too, that can be sprayed evenly on the windows of the hotel lobby in 'Joan of Paris?'

"It'll have to be a thin dye, deep enough in color to balance the exposure for the scene in the hotel lobby with the scene outside in the sun."

Lindsley, sat still for several minutes, thinking, and then said. "Sure! It can be done!"

"Cut out that 'It can be done' stuff," I yelled: "It's getting me down!"

"All right, all right!" said Lindsley, calm and cool. "Shall we make a test?"

"Sure," I replied, "a lot of 'em. Come on over to D'Agostino's office, let's talk to him."

The result was that we all got busy together. We were agreed that to get a sharp scene, both inside, and out, through the windows, a system of filtering would have to be devised that would not interfere with the characters and objects in the lobby, as obviously they would require the exposure of a rather open aperture, while the characters and objects in the sunlight of the exterior must balance with the exposure for the scene in the lobby, using the windows for the filtering agent in such a manner that it would not interfere with the shooting of the reverse-shot, through the windows, from the sidewalk into the lobby.

After many tests and experiments with different colors and densities of lamp-dyes mixed in lacquer thinners, Lindsley succeeded in compounding a mixture that applied quickly and flowed evenly on the glass.

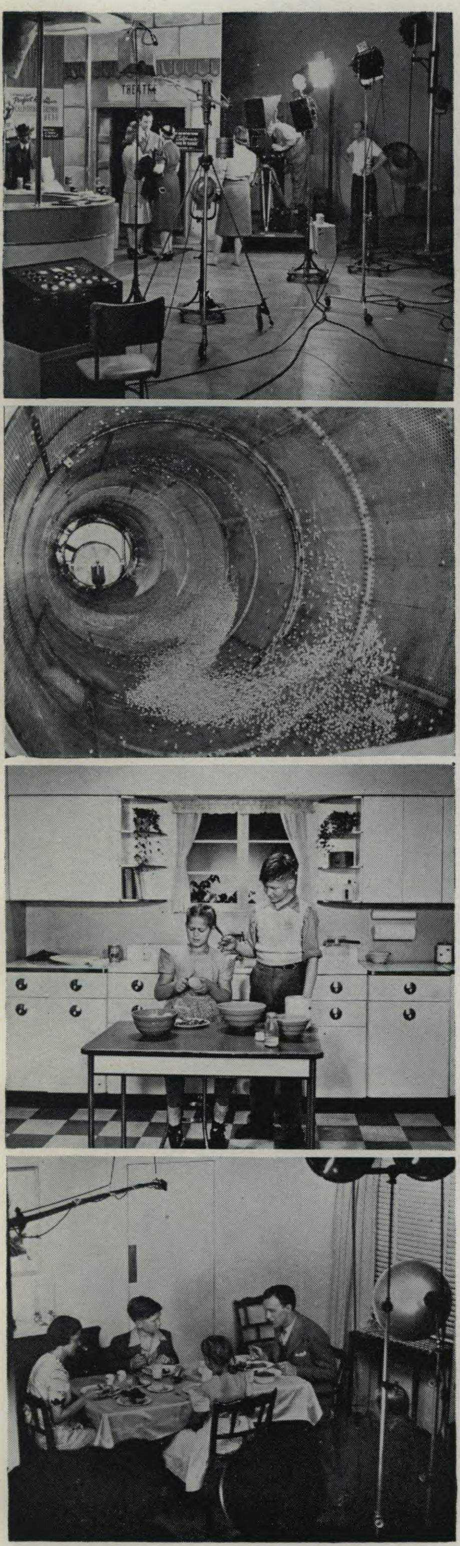
The mixture was put into a Hudson hand-pump from which the nozzle had been removed, permitting the mixture to be applied to the glass by working the pipe on the pump in a horizontal line across the window, beginning at the top and gradually working to the bottom. A tin trough was placed at the bottom of the window to catch the overflow.

Up to this time we had made our tests with 4x5 stills. Now we set up lights and put characters in the scene for a final test. The result was perfect,—to us.

We called Director Stevenson to the projection room. Quietly, he watched several hundred feet of the scene as it slid across the screen; then the lights came on. He looked at us with a broad smile and said, "Boys, that's it,—exactly what I want. Comfortable for the actors, comfortable for everybody, and quick. You see, I told you Russell, 'It can be done'!" **END.**

Kodachrome Glamorizes The Lowly Pea

By MARVIN M. BLACK



Top: Palmer and Butler shooting a scene in the studio; second: a tricky lighting-problem inside a huge pea-grader; third: comedy in the kitchen; bottom: Kodachroming a dialog scene for "Pick of the Pod."

IT'S a comparatively easy task for Hollywood technicians, with plenty of film beauties available, to produce a "glamor" picture. But just let them try to put glamor and "oomph" into such a prosaic product as a can of English peas, and they've really got an assignment! This was the tough job tackled recently by William Palmer and Dave Butler, 16mm. sound-on-film experts of San Francisco, whose stock in trade is "glamorizing" common, everyday commercial products. They've just completed an interesting 16mm. film, "Pick of the Pod," for the California Packing Corporation, makers of Del Monte products, complete with special effects and professional trimmings usually found in 35mm. jobs.

"Pick of the Pod," an 800-foot, 2-reel Kodachrome film, was made primarily for dealers and salesmen of Del Monte goods, but the treatment is so good that it's worth seeing for entertainment as well. In behind-the-scenes flashbacks, the camera takes the audience to the fields where peas grow; shots from an airplane reveal the layout of a modern packing plant; back to earth again, the camera visits a large cannery, and there follows the various processes of shelling, sorting, and grading, to the final packing for shipment to the dinner-table.

There are a number of features about this film which make it of especial interest to the cinematographer: in the first place, more than usual care had to be taken with color reproduction. For "Cal Pack," the sponsors, were not concerned merely with having generally beautiful color effects. What they wanted and demanded was faithful reproduction of the very type of green peas that go into Del Monte cans. Palmer and Butler secured their best results by making dupes on an optical printer. Such special-effects as lap dissolves and wipes were put in as each print was made, to maintain the most faithful color reproduction. By maintaining the emulsion on the same side as the original film, they eliminated ground noise and scratching by having the sound-track in constant focus.

At the same time, minor differences in the quality of light available made the use of filters necessary for accurate color-correction. Ordinarily, they might have used such compensating filters as the Harrison Color-meter set, or the Eastman one used with the Wratten Color-temperature meter, but because of the peculiar conditions under which they worked, Palmer and Butler devised a special arrangement. These filters arrived at by a trial-and-error process, were especially designed to offset the leaning toward the magenta side, in favor of the green they wished to reproduce. Their most effective application was upon the camera itself.

In shooting "Pick of the Pod," Palmer and Butler drew upon the professional techinques common to the more ambitious 35mm. productions, but ofttimes shooting under conditions that would send the average 35mm. "production" cinematographer stark, raving crazy. Ordinary outdoor location shots were easy enough, but photographing such a product as English peas, at different times of day, under varying conditions of light and yet maintaining perfect color-values, was anything else but a run-of-the-mill task!

It was practically impossible to have any cut-and-dried shooting schedule—English peas are somewhat temperamental and don't always mature when they're supposed to. Shots were made early in the morning, many at night, and at times, under the most trying atmospheric conditions.

The greatest difficulty was in working against time. To shoot the particular type of pea which the canning company wanted, they had to wait until the harvesting began, then work like demons to get through before the peas matured too far. For a whole week, they literally lived in the field, all day, and all night in the plant, on duty 24 hours on a stretch.

In shooting the interior of the plant, their worries increased. Various problems of perspective, light, background, etc. had to be solved on the spot. Unlike production on a Hollywood movie set, they could not decide beforehand the most advantageous spots to locate the camera, then adjust the lighting backdrops and scenery accordingly. They were handicapped by a legion of pipes, machinery, and heavy equipment that had to stay put. To complicate matters, the walls of the canning-plant were consistently dark, while the floors were constantly wet.

Additional lighting was provided by a special hook-up from the 220-volt high power lines with a center tap choke. Cables were strung along overhead ventilating pipes, to keep them off the wet floor.

As a rule, the areas photographed within the plant were not large, most of the shots consisting of single units

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ONE of the real pleasures of visiting the 20th Century-Fox studio is the privilege of dropping in for a chat with Ernest Palmer, A.S.C., on the set. For Ernie Palmer has a very special way of greeting his on-the-set visitors; with no sense of affectation at all, he somehow manages to convey the impression that he is genuinely glad to see you—that your visit is in itself one of the pleasanter highlights of his day. No matter how busy he may be, or how important the action he is photographing, he finds time always to greet you with warm friendliness, and to see to it that you have a comfortable chair before turning back, if he must, to the business of putting the next scene superbly on the screen.

And he *is* busy. For many years one of the studio's top-ranking aces of black-and-white camerawork, today he has added to this accomplishment equal ranking as a camera-artist in color. He has probably been associated in the making of more Technicolor features than any other of the industry's "production" cinematographers. Among them have been such films as "Kentucky," "Hollywood Cavalcade," "Chad Hanna," "Belle Starr," and "Blood and Sand." Most recently, with the currently-released "Week-end in Havana" and his present production, "Song of the Islands," Palmer has become one of the first "production" cinematographers to solo-pilot a major-studio Technicolor production.

Aces of the Camera XI:

ERNEST PALMER, A.S.C.

By WALTER BLANCHARD

Palmer very obviously likes color. If you ask him why, he'll give you that deceptive slow smile of his, and confess, "I like to look at the rushes! There's something so much more satisfying—more complete—about a scene photographed in color than there is about the same scene photographed in cold black-and-white. And color is infinitely flattering, not only to the players but to the cinematographer as well, so that it is really fun, rather than an ordeal, to go into the projection-room to screen your rushes if they are in Technicolor.

"It is always a surprising thing to me to see how many stars who have not previously appeared in a Technicolor picture seem somehow to rather dread the ordeal of facing the color camera, as if it were something that would mercilessly show up their un-photogenic points. Really, the exact opposite is true: Technicolor is the most completely flattering medium by which any star can be presented. The simple fact of the addition of color seems to do as much to enhance a player's appearance as the whole bag of monochrome camera-tricks. We had a clinching proof of this in two recent releases of our studio—"That Night in Rio," in Technicolor, and "Great American Broadcast" in black-and-white. Both of them were photographed by my friend Leon Shamroy, A.S.C., and Alice Faye appeared in both productions. Viewed strictly as examples of photography, there could be little choice between the two productions; both were photographed by the same artist, and both were good. But there was no comparison between the way Miss Faye appeared on the screen in the two films. It is well known that during the last year she has not been in the best of health: well, in the black-and-white production she sometimes showed it, while in the color film she did not. The same thing has happened with other stars, in other studios, too, so we may conclude very definitely that the best prescription for any player who may feel that overwork or time are taking their toll would be to insist on being photographed by the flattering color-camera.

"The same thing works equally for the cinematographer, of course, for if in Technicolor he can make a player look better than she does in black-and-white, it is definitely to his advantage. Besides, it is, if anything, easier.

"I'm sure by now the old idea that color-photography is harder and slower than black-and-white has been pretty well exploded. I know that here at 20th Century-Fox, while of course they make some allowance for the added cost of

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THROUGH the EDITOR'S FINDER

A FEW evenings ago we had the privilege of attending a screening of some of the training films the industry, through the Academy Research Council, has been making for the U. S. Army. It was an experience we wish every one of our readers might duplicate, for in the course of that two-and-a-half-hour showing we saw many things that filled us with pride—pride in being an American, and pride, too, in being a part of an industry which could contribute so inspiringly and constructively to the National Defense.

Perhaps it's wandering rather far afield for a technical journal to comment on such things, but there were details—little, unnoticed incidentals and overtones—which were more eloquent of the real significance of the American Way of Life than thousands of words gargled by professional spellbinders. Little things in every film showed it—the intelligently-disciplined informality between officers and men; the alert, intelligent and well-educated types of enlisted men shown in the film and obviously typical of the intended audience; the frequent suggestions to the private soldier to "see if you can't reason it out yourself"—all spoke glowingly of the uncommonly high type of American citizen-soldiers being trained to defend our country. If the Army could see its way clear to release modified versions of some of the less technical of these films to the general public, it would be doing the public, as well as itself, a service, for it would bring to the folks at home an inspiring and heartening picture of the lives and training of their boys in uniform. And that's a very different life from that of the armies of yesteryear.

These films—what we saw was but a dozen reels out of more than 100 reels produced since February of this year—are unique in another way, too. They represent the efforts of the finest creative and technical minds of the motion picture industry—producers, directors, writers and cinematographers who have won Academy Award honors, and who are daily turning out the industry's greatest films. Their professional services are, in the aggregate, literally beyond price, yet they are being given freely in the cause of their country's defense. And they are giving their country training films of a calibre no other nation on earth could possibly equal.

In the process, they are incidentally performing an outstanding service for educational films in general, for they are bringing into being an entirely new type of instructional motion picture. Not the conventional "dry-as-dust" type of educational film, which gravely presents a mass of facts to the accompaniment of a professorial narration, but something new and alive, a film which is in the best sense a motion picture, combining factual value with true entertainment-film technique—story, synchronized dialog, human-interest appeal and even occasional humor. Offhand, we'd say from our own reactions that the impression created by one of these new-day films should outlast that of the average school-film ten to one, not merely because of the added inherent interest of the military facts presented, but because of the more interesting way in which they are presented. In doing this, the makers of these films are contributing also to the progress of visual education, and are likely to, as one educator put it, advance educational films by twenty-five years at a single stride.

All told, we can be mighty proud of what the industry is doing in making these little-publicized Army films.

•

NOT long ago, lunching at one of the major studios, we got to talking with one of the industry's better-known directors of photography. He was about to start a picture—and he wasn't particularly happy about it. "Yes, I'm starting a picture tomorrow," he said. "But that isn't news. I'm always doing it! When the studio hasn't an 'A' picture for me, they put me on a 'B'—and when they haven't even a 'B' going, they dig up a short or some tests for me. It's all very nice and efficient; they certainly see to it that I'm earning money for them every day I'm on the payroll!

"But here I am, starting a picture tomorrow, as soon as I finish retakes on another one tonight. But—the director I'm starting to work with tomorrow has just finished a three-months' vacation, while I haven't had even a day off in three months; my last vacation was over three years ago.

"And what'll happen—? My director will be all fresh and full of vim and vigor. I'm so tired my eyelids are dragging—yet I'm supposed to keep up with him not only physically, but mentally, as well. A dozen times a day he'll ask me if I have any ideas or suggestions for making this scene or that sequence better. Ordinarily, I would have; but now—well, I'm so fagged out I'll be lucky if I'm clear-headed enough to do even the routine work of photographing the pictures, let alone suggesting ideas that could make his work or my own better!"

There's a world of meat packed into those few sentences. Let's say, for the sake of argument, that from the auditor's or the department head's viewpoint it's good business to arrange things so that you get a day's work for every day a cinematographer graces a studio's payroll, even though you've an example of plenty of directors, actors and writers who collect checks ten times as large every week, though they don't even drive by the studio gates when between pictures.

But, in the long run—it is really good business? After all, the success and saleability of a motion picture production depends on it's being successfully captured on film. A million-dollar star can become a million-dollar failure overnight if the man at the camera isn't alert to capture her subtle charm and glamor on his film—to offset with his lens and lighting those inevitable moments when she needs his help to preserve the essential illusion of youth and freshness on the screen. And his work is far more mental and creative than routine and physical. His eye must be sensitive to fine gradations of lighting; his mind fresh and alert to suggest ways in which the camera can aid in capturing dramatic moods, and suggest "production value" with minimized actual expense.

He cannot do this when he is physically tired and mentally stale. He cannot do it when he is routed rapidly from one production to the next like a bolt-tightener in a flivver factory. Subjected to such strains, the human body can take only so much. Above all, extended over work exhausts the eyes of the cinematographer—those eyes upon whose judgment of light and shade the successful photographing of a production and all it entails, depends.

Our executives recognize that mental and physical freshness are essential if they are to get the best work from directors, writers and players. They know that "all work and no play" makes Jack or Jane a very dull creative worker. They recognize in contracts and in their after-dinner speeches that cinematographers are no less creative artists than the three groups just named. Why, then, do so few of them recognize that cinematographers, too, can grow tired, stale—and less creative—if they're too consistently overworked?

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WITH this issue, THE AMERICAN CINEMATOGRAPHER reaches its twenty-first birthday. During those twenty-one years, many changes have taken place in cinematography; many new fields—undreamed-of in 1920—have opened up. THE AMERICAN CINEMATOGRAPHER, dedicated from the start to advancing cinematography and serving the men behind the cameras, has undergone many changes too. But its governing policy, today as in 1920, remains unchanged: to serve in a practical way all who use motion picture cameras, either for business or for pleasure.

A.S.C. on Parade

With A.S.C.-Secretary **Al Gilks** called to active service with the U. S. Navy, the Society welcomes a new Secretary and a new member to the Board of Governors. **Charles G. Clarke, A.S.C.,** takes over Al's duties as Secretary-treasurer and **Charles Schoenbaum, A.S.C.,** takes the vacant seat on the Board of Governors.

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Al Gilks, by the way, postcards from Washington, D. C., where as **Lieutenant Gilks,** U. S. N. R., he is for the present in the office of the Coordinator of Information, with no indication on as to where his further duties may take him.

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We've an apology to **Harry Davis, A.S.C.,** by the way. In last month's article about "Hollywood's Own" Naval Reserve Photographic Unit, we neglected to mention that **Harry** is known in Naval circles as **Lieutenant Davis.** We're sorry. In defense we can only say that the Navy has a reputation for picking good men—and not talking about it!

•

Random thought on seeing A.S.C.-Prexy **Fred Jackman** stroll out of the clubhouse gate accompanied by brother **Floyd Jackman, A.S.C.,** son **Fred H. Jackman, A.S.C.,** and ditto **Joe Jackman:** when you see 'em en masse like that, wouldn't you say the plural of Jackman ought to be **"Jackmen?"**

•

Another random thought as we stroll into the parking-lot to drive off in our V-8: what confusion there'd be if **Charles Rosher, A.S.C., George Barnes, A.S.C. and Rudy Maté, A.S.C.,** all came out in a hurry, trying to decide which of three almost identical big gray Cadillacs belonged to which—!

•

Stanley Cortez, A.S.C., is certainly getting to be the professionally popular boy. No sooner did he finish a picture at Universal, than David Selznick sent him to New York—and in the middle of that, Orson Welles decided he wanted **Stan** to direct the photography of "The Magnificent Ambersons" for him, so **Stanley** had to 'plane right back to Hollywood.

•

Add things we didn't suspect: **John Arnold, A.S.C.,** for lo, these many years M-G-M's camera-headman, once was the photographic Mr. Big for an outfit called Republic Studio. Only it wasn't today's up-and-coming Republic, but a long-forgotten organization in New York bearing the same name. You see, that was 'way back in 1910!

•

Recent invalid, **Jerry Ash, A.S.C.,** back at work on a Universal serial, fifty pounds lighter but still full of wim, wigor and witality, thank you.

Daniel B. Clark, A.S.C., on his annual vacation from his duties as camera chief for 20th-Fox, off fishing at some inaccessible fisherman's paradise in the back-country of Utah or Nevada, which he discovered making some of those 87 thrillers with Tom Mix.

•

That man **Ray Rennahan, A.S.C.,** certainly does get around. The other day we ran into him at lunch-time out at M-G-M, where he was making the current Community Chest Short with the Dr. Kildare troupers. An hour or so later we encountered him at Paramount, checking up on some projected added scenes for his latest, "Louisiana Purchase."

•

Sid Wagner, A.S.C., bedded with a bad attack of flu. Maybe during his convalescence he'll get a chance to use that new Speed Graphic he bought the other day.

•

Elmer G. Dyer, A.S.C., back from Canada with Warner's "Captains of the Clouds" troupe, reported for duty with **John W. Boyle, A.S.C.,** lensing aerial thrill sequences for the Abbott-and-Costello starrer "Keep 'Em Flying." Meantime **Joe Valentine, A.S.C.,** winds up the "production" part of the opus. **Elmer,** by the way, hopes this isn't as hair-raising an assignment as his last job at Universal. Seems that time—on a one-day call—**Elmer** nearly struck up an acquaintance with St. Peter when the motor of a low-flying camera-plane conked out and the ship sat down to rest in the Los Angeles river's sandy bottom. **Elmer** was so busy wondering just how and where they'd crack up that he clean forgot to switch off his camera-motor—and got a bang-up shot of a real, unstaged crack-up! Yep, believe it or not, the shot went into the production. Seems they needed a background like that, and had been wondering how they could get it—!

•

John Mescall, A.S.C., between pictures, one of the nicer dropper-inners at THE AMERICAN CINEMATOGRAPHER'S office.

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Wonder why the U. S. Army seems to be a perpetual jinx to us; for six months or more we've been trying to get a good cover showing movie cameras in the foreground and Uncle Sam's Best in the background—and something always happens. Latest was during the recent manoeuvres in Louisiana. **John Herrman, A.S.C., etc.,** covering the event for Paramount News, tells us he lined up a swell cover with not only the newsreel gang but also MGM's "Steel Cavalry" second-unit crew—**Lloyd Knechtel, A.S.C.,** and their crews—lined up in front of a battalion of tanks. And the innocent bystander **Herrmann** pressed into service to trip the shutter somehow bungled it, spilling the camera and plateholder (but separately) among the Louisiana mud. Sabotage, we'd call it!

•

Honorary Member **Eddie Blackburn, A.S.C.,** beaming paternally over the gogettiveness of Teddie, Jr., demon Satevepost salesman. Once one of those **Blackburns** has you spotted as a prospect, you're a gone coon, whether it's for Steveposts or Eastman Film.

•

Gregg Toland, A.S.C., with Goldwyn's "Ball of Fire" completed, ofl for a Mexico City vacation.

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John Alton, A.S.C., so we understand, has just signed a contract with Republic. Quite a month for that studio—joining the Producer's Association to take on Major Studio status, and adding a camera-artist like **Alton** all within the same 30 days.

•

Pev Marley, A.S.C., can point with pride to the fact that two of his pictures opened two of Los Angeles' swankiest cinemas: the initial attraction at the Carthay Circle Theatre was **Pev's** "The Volga Boatman," and Grauman's Chinese opened with "King of Kings." Quite a record!

•

Lester White ,A.S.C., will probably rise to remark that while some recent shots may cover a lot of ground, its nothing compared to the intricacy of those Director Busby Berkeley's had him doing for "Babes On Broadway." We think he's got something there—last time we dropped in to visit **Les** on the set he was up against the problem of making a sidewise dolly-in crane shot which ran from an extreme long-shot to an equally extreme close-up of Judy Garland's left tonsil in the middle of a high note. And he says that was one of the easier ones—!

•

Tony Gaudio, A.S.C., enjoying an enforced month's layoff before finishing "The Man Who Came to Dinner," while star Bette Davis recovers from an accidental nip given by one of her pet pooches in a spot where no movie-star should ever be nipped.

•

Karl Struss, A.S.C., can point to the fact that his forebears have been U. S. Americans for 103 years now. He's a third-generation Yankee.

•

John Arnold, A.S.C., crowing over the fact that production has been so becoming at MGM that one day recently he had no less than 29 A.S.C. members on the payroll.

•

Lucien Ballard, A.S.C., on a between-pictures vacation, somewhere between Del Mar and Boulder Dam.

•

James Wong Howe, A.S.C., lunching in the Warner studio commissary with a very charming-appearing Chinese lady.

PHOTOGRAPHY OF THE MONTH

WEEK-END IN HAVANA

20th Century-Fox Production (Technicolor.)

Director of Photography: **Ernest Palmer, A.S.C.**

"Week-end In Havana," latest in Producer Zanuck's Technicolored musical comedy tours of Latin America, is a very pleasant evening's entertainment, but beyond that it has a special photographic significance. It is one of the first Technicolor productions in which the photographic responsibility lay solely on the shoulders of a "production" cinematographer, with no assistance from a Technicolor specialist. The results on the screen prove that, when the assignment is entrusted to as brilliant an artist as Ernest Palmer, A.S.C., this course is well justified. In this production Palmer turns in a performance which eclipses all of his previous Technicolor achievements, with of course the exception of the superlative "Blood and Sand."

His treatment of the players, with the exception of a few early scenes in which John Payne's make-up and facial rendition are below par, is uncommonly fine. Certainly Alice Faye has not in a long time appeared to such good advantage; in some of her previous recent appearances we have felt that despite the efforts of the very capable cinematographers involved, she showed too obviously the signs of overwork and ill health; but in "Week-end In Havana" Palmer again shows her as the beauty we expect to see. Our sincere advice to the lady would be to insist hereafter on Technicolor photography, and Ernie Palmer at the camera!

Palmer's compositions and set-lightings throughout are a joy to the eye. Substantially black-and-white technique is used, and to very good advantage. Throughout, the lightings are more strongly directional than has often been the rule in Technicolor productions, and compositions are enhanced by the type of background shadow-patterning familiar in the better-photographed black-and-white productions, but all too often avoided when filming in color. The production very definitely gains in pictorial effectiveness from this technique.

Another outstanding highlight of the production is the set-design by Richard Day and Joseph C. Wright. They have made uncommonly effective use of soft, pastel colorings in their sets—especially very pleasing tones of soft blue and blue-green. This set-coloration adds definitely to the dramatic mood of the action, without becoming at all obvious. The settings and the costumes by Gwen Wakeling are also very artistically coordinated.

HONKY-TONK

Metro-Goldwyn-Mayer Production.

Director of Photography: **Harold Rosson, A.S.C.**

A year ago Hal Rosson, A.S.C., had a strong contender for the black-and-white Academy Award in "Boom Town." In "Honky Tonk" he has a very similar type of picture and—in this reviewer's opinion, at least, acquits himself if anything a good deal better than he did in the film which almost brought him last season's "Oscar." The present release seemed to us a good deal smoother photographically — a better coordinated whole, than did "Boom Town."

It may be that part of this is due to the fact that "Honky Tonk" gave Rosson a fuller scope for interestingly pictorial effect-lightings than did its predecessor. At any rate, Rosson has handled them well, and imparted to the whole production a smoothness and finish which the other somehow lacked.

A picture like this offers a queer paradox, anyway. Full of rough-and-ready action, well spiced with shooting in the time-honored "western" formula manner, it none the less cannot be given anything like conventional "western" camerawork, for it serves as a showcase for two of the studio's top-flight stars, whose photographic value must be protected at all times. Rosson does a grand job of this; he gives Clark Gable the desired virility, and at the same time deals very glamorously indeed with Lana Turner. The latter, by the way, is no easy thing to do when you're working within the framework of an ostensibly rough-and-ready action picture.

There's no telling, as yet, whether Rosson's present release will do as well for him as "Boom Town" did—but this much is sure: he's gotten his name on the credit-title of what's bound to be one of the big box-office films of the year!

NOTHING BUT THE TRUTH

Paramount Production.

Director of Photography: **Charles B. Lang, Jr., A.S.C.**

Transparency Process Photography by: **Farciot Edouart, A.S.C.**

Some of the ladies and gentlemen of the press whose duties deal with reviewing films from an entertainment standpoint have commented that "Nothing But the Truth," while entertaining, still at times evidences the unreality of the old-time farce-comedy. In making this criticism, it seems to me that they underrate the contribution made by Cinematographer Lang. His camera-treatment gives this dramatic veteran a really streamlined presentation which does a lot to make it seem at once more real and more modern than it actually is. A psychologist could probably point out that the polished camera-treatment Lang uses—so reminiscent of what audiences have repeatedly seen in other, more significant pictures—brings by subconscious association an impression of reality and modernity which would be missing in a less capably photographed version of the same film.

At any rate, Lang has done an excellent job. His handling of the sets is pictorially effective and technically very smooth indeed. His treatment of the players is another highlight: as usual with Lang's work, there is an effortless ease in his presentation of the actors which gives the impression that it must have been a very pleasant assignment, nothing at all like work. Yet in actuality, this effortlessness is in itself evidence of photographic skill of a very high order.

The special-effects work by Farciot Edouart, A.S.C., is as usual very excellent, indeed.

A YANK IN THE R.A.F.

20th Century-Fox Production.

Director of Photography: **Leon Shamroy, A.S.C.**

Special Aerial Scenes filmed in England by: **Ronald Neame, Jack Whitehead and Otto Kanturek.**

Leon Shamroy, A.S.C., gives his accustomed polished camera-performance in "A Yank in the R.A.F.," though it hardly takes place in this reviewer's mind as among Shamroy's best work. His treatment of the players is, as usual, excellent, and his effect-lightings—especially in the London blackout sequences, extremely interesting. His handling of the much-publicized sequence of the evacuation of Dunkirk is spectacular, and makes one wish greater footage had been allotted to this action. The special-effects work throughout is commendable, with process-shots which, while less outstanding than some seen in other recent flying pictures, are none the less evidence of definite improvement in this studio's process work.

The dogfight miniatures at the end of the picture are excellent, but much too brief; their footage could have been almost doubled to good dramatic effect.

By long odds the photographic highlight of the production are the aerial sequences filmed actually in England by Ronald Neame, Jack Whitehead and the late Otto Kanturek. These scenes, many of them filmed under fire, rank in effectiveness with the best work turned out by Elmer Dyer, A.S.C., in this country. Due to the terrain, the type of aircraft shown (the famous "Spitfires") and England's unique atmospheric conditions, these shots could certainly not have been duplicated in this country; they add mightily to the effectiveness of the production. It is infinitely to be regretted, however, that they cost the lives of several men—Cinematographer Kanturek, his crew and pilot—who were shot

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An Amateur Tries 16mm Sound-On-Film Recording

By **KENNETH O. HEZZELWOOD**

St. Paul Amateur Movie Makers Club

SINCE 1927 I have made motion pictures, both in sixteen and eight millimeter, and I have enjoyed every minute spent in capturing on film the high points of vacation trips, family gatherings, or special events, and in making titles to dress up the films.

But for concentrated thrill and ecstatic excitement, the production of sound-on-film with my Auricon recorder supersedes all the joys—and all the sorrows—which one person could expect from a century of silent movies.

Sound recording has lifted me above the mountain tops—and it has dashed me on the rocks in the lowest part of the valleys. There have been times when the Auricon has seemed to be a cherished possession—and times when the classified section in THE AMERICAN CINEMATOGRAPHER might soon advertise it "for sale—cheap."

After visiting the sound stages of several Hollywood companies, and chatting with Bill Yale, ace cinematographer of the Great Northern Railway, I decided that silent pictures, even when accompanied with disc sound effects and music, might soon be passé even in the amateur field, much as the silents have dwindled away from the professional screen.

Two pictures, one in color, were made at sound speed, 24 frames per second, planned especially for sound to be added, just before E. M. Berndt announced the Auricon recorder at a price within reach of amateurs. Instead of having a laboratory record the sound, I plunged and bought the recorder—in one swoop risking what little was left of my budget and my reputation—to produce a semi-professional sound picture for the St. Paul Police department, entitled "The Wide Open Town."

With no more experience than the average home movie fan, I tackled a job which ordinarily requires a qualified sound engineer and a great deal of expensive apparatus. By trial and error and much laborious splicing, with my wife's help in recording, I turned out a sound film to which a reputable sound engineer would listen only if his ears were thoroughly plugged with cotton, but which manages to hold the attention of local audiences until the end of the picture. And that is the criterion by which this first effort must be judged.

Kodachrome seemed an expensive medium for the first experiment in sound-on-film, so monochrome was used.

Editing for sound is different than for a silent strip. I missed the transition titles, and the longer scenes. The script required many short scenes, and they had to be cut down so the narration would not drag. Even so, I left many scenes too long because I felt the audience might need more time to view the picture.

The sound-track contained the announcer's voice, a few musical interludes taken from records, and four or five sound-effects which were spliced into the sound to synchronize with the action. It was necessary to make several recordings before one was suitable; when the first ones came back completely spoiled—noisy and choppy and unintelligible—I was about ready to give up and try golf again to see if I could break a hundred.

It was then that I discovered Auricon had a pretty complete set of directions. It gave me several new ideas on microphone placement, acoustical treatment of the announcer's booth, and emphasized the importance of keeping the sound recording level below the upper recording limit for best results.

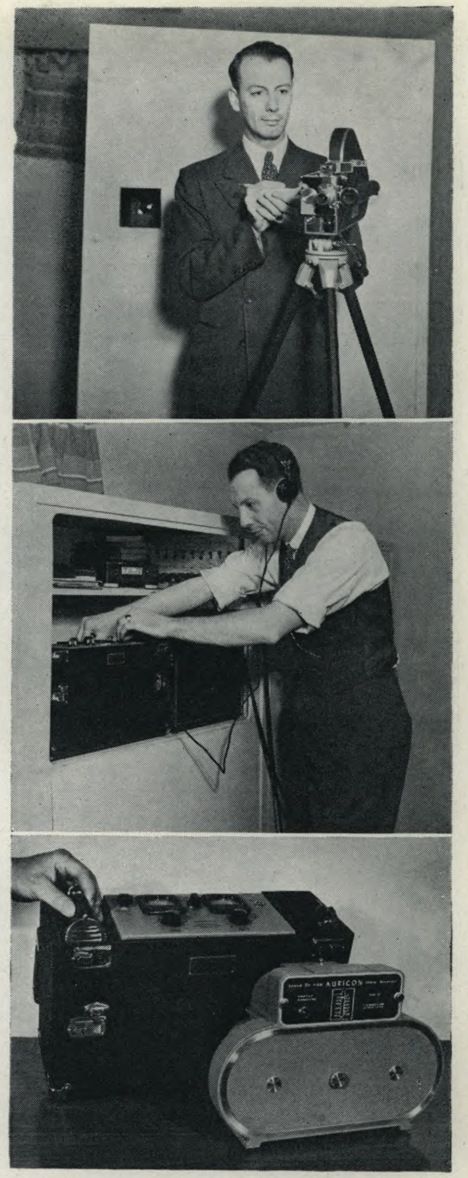
I had made my mistakes, plenty of them, but finally finished the sound track which was sent with the original picture to a laboratory for the production of a combined print.

When the print arrived, behold, the sound was several seconds late at each cue-point in the picture. I sweat blood again, and then discovered that the laboratory had made the mistake which they acknowledged, and supplied another print, correctly synchronized.

Since the professionals, too, had erred, it eased the chagrin I felt for my own foolish blunders!

The first color picture intended for sound, never materialized, as the subject matter didn't come up to my expectations, but a friend had filmed 100 feet of the 109th Aero Squadron leaving St. Paul for Louisiana, and wanted sound applied to the original Kodachrome film before the picture was developed.

He had made his picture on an Eastman Special, using Kodachrome sound recording stock, but he had only a vague idea of the footage used for each sequence of shots. We wrote up a general description of the event, and used a sound-effect record of an airplane circling and swooping overhead. His original film was rewound in a darkroom and threaded in the recorder.



Top: Hezzelwood carefully logs footage of each scene; note soundproof projector-booth in rear. Middle: one man operates recorder and record turntables. Bottom: the Auricon recorder that did the job

When the recording was finished, the roll was sent to the laboratory for processing of both the picture and sound-track, and upon its return, I experienced another of those ecstatic moments dear to the experience of photographers—to see the picture for the first time, and also to listen to the sound track—hoping that each would be good, and that both would synchronize harmoniously.

They did!

Engines roared on the amplifier speaker just as planes dived into the picture. Planes obediently took off just as the announcer described. Every frame of the 100 foot roll was perfectly exposed.

A member of our movie club saw the film, and soon he bought an Eastman

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I Make A Travelogue
IN OLD QUEBEC

By CHARLES W. HERBERT, A.S.C.

MANY Americans found out this summer that they don't have to cross the Atlantic for vacations with Old World atmosphere. Just north of the border, over into friendly Canada, there's the Province of Quebec which was settled at the same time, in the same manner and by the same kind of freedom-seeking people who established our own first thirteen colonies.

Quebec is a vast country with plenty of open spaces, yet thickly settled in spots. It encompasses the bulk of early-day historical settings in the new world to the north. Quebec's people and their work vary from highly centralized industry to widely separated agricultural activities. In the south, Montreal, the greatest city in Canada, patterns its daily life after any one of the manufacturing cities just south of the border in the United States. Far to the north there's one of the most vital war-products plants on the North American Continent. In the back country, trapping has been an important occupation since the first Hudson's Bay Company trading-post was established. Through the wilderness areas, lumbering and pulp paper making rank high as revenue-producing industries. Yet in between, here and there, plain farming folk live their lives in true old-world manner.

Quebec has had a record crop of tourists this year and in addition has had a record flow of wandering travelogue cameramen combing every corner for outstanding shots. Most cinematographers who come to Quebec with extensive plans for covering the whole province soon give up this unwise plan and select a specific region in which to work. It's just too vast and there's too much to see and shoot in relatively narrow regions. The City of Quebec and its environs can furnish enough material for a travelogue for any cameraman, professional or amateur, who digs into corners and goes over the fences and inside the walls.

The Gaspé peninsula is one of the favorite hunting-grounds for photographers. It has been done often but there's still more to do and it is always interesting. The southern part of Quebec can furnish enough material for a good travelogue reel any time. The Laurentian Region affords abundant opportunity for outdoor activities, especially hunting and fishing, in pictorial mountain settings. Lake St. John is surrounded by a wealth of material, most of which lies conveniently along its shores.

The banks of the Saguenay abound in quaint little villages and modern industries which can be woven into a sure-fire pattern for an outstanding reel. Then there's Charlevoix with a wide variety of tourist activities and luxurious settings mixed in with primitive life that thrills the traveler at every turn of the road. The Isle d' Orleans would in itself provide the camera artist with a wealth of subjects with just the right flavor.

I learned that two outfits were planning to do Gaspé so struck that off my list and decided on the Saguenay-Charlevoix Region which is seldom touched by photographers who are on a limited schedule. No travelogues can be made best if the cameraman is restricted to a definite schedule, and still no company can produce travelogues economically if time is not considered as a factor. Thus I tried to strike a medium by keeping working-time down to a profitable limit and yet planning for thorough coverage of the region for outstanding highlights.

Following my usual pattern I drew up an outline from information I was able to gather out of booklets read on the train on my way to Quebec from my last stop, which was Montana. In Quebec, after conferences with the Quebec Tourist Office, our co-operating agency, I altered and added to the prepared outline. But in principle the outline was much the same as any that I use for the regular type travelogue.

There must be, in the ideal travelogue, an introduction that convincingly establishes the location of the reel. These introductory shots should be outstanding and show the type of the country—whether mountains, sea shore, city, desert, rolling hills, farm land, or whatever it may be. In this region I made a shot here and a shot there which I believed gave the true atmosphere of the country covered. There was a soft, beautiful coast-line shot, a graceful waterfall, a winding country road, a small village dominated by a piercing church spire, a rugged fjord view and a happy flower-decked landscape. These shots were of course made as I came to them while making the main body of the film. But they were planned ahead of time; I went about consciously looking for them.

The rest of the reel should be composed of at least six different sequences, but we always try to get eight so that the editors can make a choice. Each one of the sequences should be as different from the others as possible. Only one important, outstanding industry should be covered; only one religious aspect, one agricultural angle, one folklore feature, one educational activity, now-days one military movement, and just one historical, scenic or recreational attraction.

Up at Chute Caron I found one of the most powerful power-plants on this hemisphere. With a shot of this as a lead, I worked up a sequence of comparison between modern power and primitive power which is still much in use in Quebec. There was an antique water-wheel which turned an old fashioned grist-mill; a windmill powering a barnyard saw; a tread-wheel running a home threshing plant and a queer home-made washing machine propelled by a small water-wheel. Rushing water at the gigantic dam contrasted with the slow deliberate movement of primitive water-wheels cut together into a smooth running sequence that embodied all of the spirit of Quebec.

Down along the banks of the Saguenay, I found a little Christmas-tree town, Descent des Femmes, which had just the right setting for a folklore sequence. Viewed from a fifteen hundred foot height above, a high shot looking down furnished an ideal introductory long-shot. The little church stood out prominently and I made many closer shots of the people coming out of the church, and then followed with some scenes of village life, ending with a complete dance sequence.

These simple country folk turned out in force, fiddle and all, at an hour's notice. We brought an event worth talking about into their hemmed-in, placid lives, and they danced away for several hundred feet of film shot from every angle which would cut into a perfect dance sequence. Their kindness and patience could not be matched anywhere. My assistant and I enjoyed our brief stay, and the food which they served topped anything we obtained elsewhere on the trip.

The story of pulp is almost a complete reel in itself but I concentrated on the spectacle of great masses of logs tumbling down to the mill, floating on the storage lakes, moving systematically on conveyors into the mill, hurtling through the powerful barking-drums and building up the ever growing-storage pile. I felt that this was sufficient to tell the story and decided that it was useless to attempt to go inside for mill shots although they were impressive and interesting.

For a peaceful farm sequence, shots were made of several typical farm layouts. Then a series of shots of the huge rhubarb patches that are a part of all farms in that country, tied in with cultivating with oxen, bringing in the cows, women working in the fields, sawing wood, churning butter, sharpening an axe and baking bread in an outdoor oven. There are many aspects of farm life which could be covered but when you are trying to produce a single travelogue reel on a profitable basis you can't make everything—just enough to build up a brief sequence. Also when you are making travelogues all the time it is a good idea not to make the same shots in each reel where a similar sequence is covered, but to save some shots for the next reel. This, by the way, is an excellent plan for the amateur travel-filmer to follow, too.

Since I was working on the theme "In Old Quebec" it was distinctly in order to follow the farm sequence with one on handicraft. A perfect home interior was located with the right types for spinning and weaving. These settings gave ample opportunity for convincing angles and intent action shots. Well-suited for incorporation into this sequence were shots which we made at one of the attic factories where hooked rugs are made exclusively for the tourist trade. There an impressive general view was obtained, which was logically followed with close-ups of the girls working, close-ups of the movement of their hands and close-ups of the patterns which they skillfully copy day after day. These hooked rugs are world famous and take up a good portion of the customs exemption allowance of most American tourists returning home from Quebec.

For scenic and recreational appeal we found Tadoussac, a quaint summer resort 'way up on the north bank of the Saguenay where that historical river empties into the St. Lawrence River. And there in Tadoussac was one of those "only one of its kind" features we always try to find in any new field. Sand skiing—and boosted by a Sand Skiing Club. I suppose that sooner or later every cameraman who works around sand dunes thinks up the gag of having bathing girls skiing or trying to ski down the dunes. Usually such gag stories turn out to be pictorial with long slow-moving shadows on the sand or else just another excuse to exploit the bathing girl. I've done three such stories, in Egypt, in New Mexico and in Florida. But this was the real McCoy! Here was a genuine Sand Skiing Club and a natural feature which filled in a wide gap in my planned film.

Naturally I devoted more time to this than most any other feature. I had to get the angles and I had to build it up pictorially. The sand dune was easily two hundred feet high and steep enough so that you could really ski down it. We had to search for expert skiers. That wasn't so easy and many of the shots which were intended to be good action turned out to be comedy-relief angles as my cast just couldn't ski well enough. But we made the best of the opportunity and included tobogganing shots and a boy on a home-made contraption that looked like a cross between a ski and a bicycle. The next day we were fortunate in getting several boys who could really ski and who also had the nerve the sport required. Making shots from the top, others from the middle of the slope and some from the bottom turned out to be real labor. My outfit, a standard Mitch-

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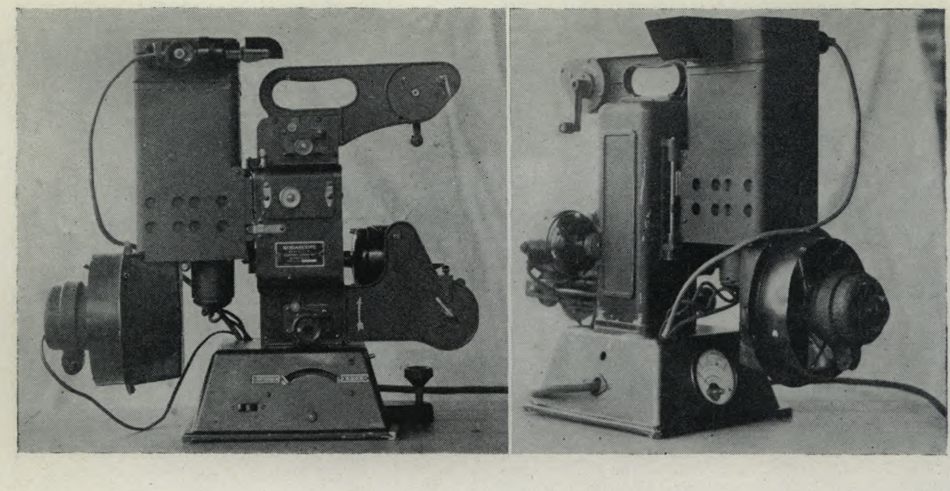
Cross-section of a travelog: "human interest"; a reverent touch of religion; village life, and village homecrafts.



Modernizing The Old Model A Kodascope

By G. EVERETT MARSH

Vice-President, Washington
Society of Amateur Cinematographers

THE very first 16mm. projector manufactured commercially—that venerable and reliable patriarch of the amateur movie field, the Eastman Model A Kodascope—is still one of the most efficient projectors you can find anywhere. But home movies have changed a lot since the original Model A made its bow nearly twenty years ago; where the early home movies were projected on screens measuring from 18 inches to 2 or 3 feet in width, today's amateurs demand the power to put a good picture on screens 6 to 8 feet wide—or even wider.

That means more light—and lots of it! Luckily the mechanical and optical systems of the old Model A are unusually good, so all that is necessary to bring this cinematic grandfather up to date for silent-film projection is to modernize the lamp-house. Here's how I modernized mine, rebuilding things just enough to permit the use of a 500-Watt globe, or even a larger one, complete with the forced-draft ventilation today's high-powered projection-bulbs demand. With this home-made glandular injection, the old Model A will more than hold its own beside any of its streamlined present-day descendants.

The original lamp was a 50-volt, 250-Watt affair connected to a resistor with a sliding contact for controlling the filament current. This resistance with its container which weighed several pounds, was removed and the leads soldered together.

The use of a 500-Watt lamp of course made forced ventilation necessary. As the base of the larger lamp fits the socket of the other one, no changes were necessary at that point. The required increase in cooling was provided by a small, 110-volt desk fan. An opening was made in the rear of the base of the lamp-house and a suitable housing for the fan was fashioned from two small pans whose centers had been removed and whose rims were fastened together with four small machine-screws and nuts. A duct fashioned out of tin joined the exit opening of the fan-casing to that in the base of the lamp-house and was secured by small machine-screws and nuts.

It was necessary to cut a little off the ends of the blades of the fan in order to secure proper clearance. Inasmuch as the inner end of the fan shaft was rather inaccessible for oiling, a small copper tube was soldered to the frame of the motor, the lower end leading to the bearing and the upper end brought up into view.

A new top for the lamp housing was made from sheet tin and with the exit on the left side thereby directing the heat of the lamp away from the operator who may be conveniently seated on the opposite side. The projector was also equipped with a small lamp and switch on the right-hand side to give suitable illumination when threading the machine. This part can doubtless be recognized as having come from the 5 and 10.

A coat of black enamel was given the new construction to make it harmonize with the rest. The entire cash outlay was perhaps a dollar and a half, of which two-thirds was for the fan. The improvements performed satisfactorily in every way.

It sometimes happens that no matter how much preliminary thought is given to an impending construction and when the finished work is shown to admiring friends, one of them is bound to say "Why didn't you do it this way?" Frequently the builder, having considered the idea, has an answer that is satisfactory; sometimes not. Such was the case here.

The exhibition of the improved projector was made with no inconsiderable pride to fellow-members of the Washington Society of Amateur Cinematographers, and sure enough, one of them said "Why didn't you do it this way?" His idea is so good it is passed on for the benefit of anyone who may desire to bring his early model projector up to date.

He made the suggestion of using an electric hair-dryer, with its heating element and handle removed, as the means for obtaining the necessary draft. A little tinwork, soldering and use of small machine-screws would supply the required attachment of the dryer to the opening in the lamp housing and it would have the advantage of being a good deal more compact.

As is well-known, the cold resistance of a lamp is only about a tenth of its resistance when lighted. When the switch is closed there is a momentary rush of current through the filament which is several times normal and the rate of heat-production is several times 500 watts. The life of the lamp is doubtless reduced somewhat by the excessive current and it would be a good plan to use a two-point switch that would cut into the circuit on the first point, say 5 or 10 ohms, to prevent this over-shooting. On the second point, the connection is as usual.

The movie enthusiast who is reasonably handy with a few simple tools and who has one of these low-wattage projectors will not find it a difficult matter to bring Grandfather Kodascope up to date and will be amply repaid. **END.**

What Does "Color Temperature" Mean To Your KODACHROME?

By GEORGE J. FOLSEY, JR., A.S.C.

TO many people—not all of them amateurs, by any means—one of the most perplexing things in color photography is the term "color temperature." It's also the cause of a lot of disappointments and headaches when Kodachrome interior scenes are filmed and fail to turn out as expected. So let's take this matter of color temperature apart and see if we can't find out what it means, and learn how to make it work for us, rather than against us.

Now that the season is getting around to fireplace-and-furnace time again, you can get acquainted with color temperature right in your own home. Just take the family poker and shove it into the fireplace or furnace: you'll notice that as it begins to get warm, the iron glows a dull red; then as it gets hotter, the red gets brighter and brighter, becoming a distinctly orange color. That's about as hot as you can get it without forced draft—but if you continue the experiment with a blowtorch or a blacksmith's forge, you'll find that as the heat increases, the color of the metal changes from orange to yellow, and finally becomes white, and in some cases almost bluish white. If you had any means of measuring the temperature of the poker, you could work out a neat little table which would show you that at so many degrees temperature, the iron was glowing redly; at so many more, it was yellow, and at such-and-such a top temperature, it had become white-hot.

That is exactly what the British physicist, Lord Kelvin, did quite a number of years ago. As a result he worked out a scale, based on the radiation of specific materials heated under controllable laboratory conditions to definite degrees, by which he could very accurately designate the color of light from any source. And just as increasing temperature in the poker raised its coloring from red to yellow to white, so in his scale reddish light is represented by comparatively low "color temperatures," and whiter light by increasingly higher "color temperatures." In the Kelvin scale average sunlight at sunrise, and also candle-flame, both of which are quite red, are rated at about 1850°K (for Kelvin), while average noon sunlight is rated at about 5250°K. Ordinary blue sky is given a rating of 11,000°K, and extremely blue, clear northwest sky is about 25,500°K.

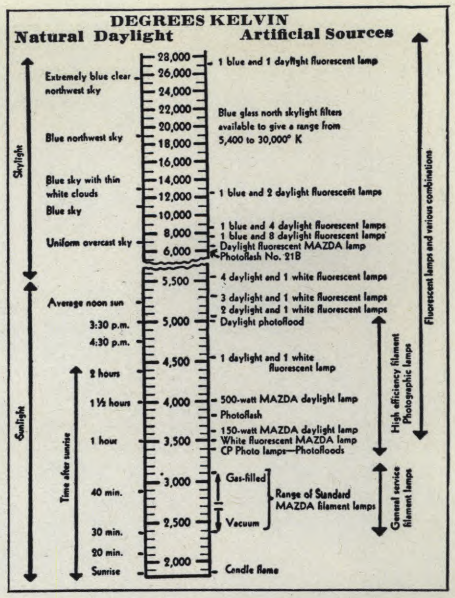
Now, just what does all this mean to you and me when we want to shoot up a roll of Kodachrome?

Just this: that if we want to get normally colored results on the screen, we've got to watch the coloring—or the color temperature—of the light we use to make our exposure! We've all of us seen what happens if we shoot a Kodachrome scene late in the afternoon: well, "regular" or daylight Kodachrome is so sensitized that it will give normal color rendition in average noon daylight; that is, with light of approximately 5250°K. But the light an hour before sunset has dropped off in color temperature to about 3500°K, which means that instead of being white light, it has become definitely orange. Our eyes are often not aware of the change — consciously, at least — because they're too automatically connected to our brains, and we subconsciously compensate for the change in color so that we actually see things as they aren't. But the color-film, being a simple, unreasoning piece of chemical reaction, "sees" things—and reproduces them—as they really are.

These differences in color temperature get much more important—and more noticeable—when we start making Kodachrome scenes by artificial light. Most of us have at least once had the experience of making an interior scene, either intentionally or by accident, using "regular" Kodachrome instead of Type A. The result was definitely an off-color red-orange on the screen. The reason was that we used film intended for use with light of around 5,000°K in light that was around 3400°K, and consequently much redder. No wonder the result was about as though you'd shot it with a "G" filter on your lens!

But the Type A Kodachrome emulsion is sensitized so that it will give normal results with light of just that red-orange color—to be exact, the 3380°K color temperature of a new Photoflood bulb. Therefore, using Type A and Photofloods, you get the normal-appearing, pleasing results we've come to expect in well-photographed Kodachrome interiors.

But sometimes in amateur-made Kodachrome interiors, and even more often in commercial 16mm. Kodachrome scenes, we find that all or some parts of the scene may have a reddish or orange tinge a good deal like that we get when we shoot Daylight Kodachrome under Photofloods. Yet—we've used Type A in what we thought was the correct manner. What was wrong this time?



The Kelvin color-temperature scale as applied to natural and artificial light. (Courtesy General Electric.)

It could be any one of several things. If the reddish hue extends pretty well over the whole scene, and isn't too pronounced, the trouble is probably that the Photofloods we used were all pretty old. For in exactly the same way an ordinary Mazda bulb in your desk-lamp gets dimmer and more yellowish as it has been burned a long time, so the Photoflood gets dimmer and yellower as its useful life is burned up and the tiny tungsten particles emitted from the filament blacken the inside of the globe. The remedy is to try it again with fresh globes.

It often happens in making commercial Kodachrome movies that this overall reddish hue—and especially Indian-red faces—mars interior scenes. In this instance, the trouble is likely to be something that doesn't often affect the amateur's work. You simply shot your picture on Type A Kodachrome, which is balanced for light at 3380°K—and made some use of the ordinary high-powered Mazda globes we use in black-and-white studio camerawork, which burn at a color temperature of 3200°K, which is about the color of sunlight 45 minutes before sunset. No wonder you got red-skinned faces! The remedy in this case, since your professional Kodachroming calls for lamps much bigger than even No. 4 Photofloods (and not frosted, if you are using spotlights) is to employ the "CP" (color photography) type globes which are specially made for color photography. These burn at approximately the same color temperature as Photofloods—3380°K—and are available in several sizes ranging from 2,000 Watts to 10,000 Watts.

Sometimes in both commercial 16mm. and amateur Kodachroming it may be necessary to use baby spotlights, "Dinky Inkies," and the like, for which "CP" globes aren't available, and for which uses the inside-frosted Photoflood globes aren't suitable. In that event, you can use light blue gelatine filters on your lamps to raise the color temperature.

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Scenario For Filming Thanksgiving

By JEANETTE REED

HERE'S a scenario specially planned for rounding out the usual family Thanksgiving shots into a complete little home movie comedy. I can recommend it especially to wives of serious-minded cinefilming husbands who—with the very best of intentions—are always getting in the way with camera and lights when the family has something important to do.

Main title: THANKSGIVING WITH THE FILMERS.

Scene 1: **FADE IN.** Joe and Sally Filmer are seated by their projector. He stops the projector, shakes his head disgustedly, and turns to his wife, speaking.

Title: "THIS YEAR I'M GOING TO GET A REALLY COMPLETE THANKSGIVING MOVIE — IF IT KILLS ME!"

Scene 2: Close-up of Joe as he finishes speaking. **FADE OUT.**

Scene 3: **FADE IN.** Joe, with his camera, standing in a market, consulting his exposure-meter. He shakes his head; no use, not enough light. He turns and speaks to Sally.

Title: "WE'LL GET A BETTER SHOT —AND A BETTER TURKEY—IF WE DRIVE OUT TO SOME FARM." **FADE OUT.**

Scene 4: **FADE IN.** Long-shot of the family car rolling along a country road.

Scene 5: Close shot of Joe, Sally and little Susie in front seat of car. Sally points to something ahead.

Scene 6: Close-up of farmer's roadside sign, "Turkeys, 20c per lb."

Scene 7: Long-shot of farm buildings. They're rather drab and disreputable; not at all picturesque.

Scene 8: Same as Scene 5. Joe looks, then shakes his head. Obviously, he doesn't see a picture in that location. The car spurts ahead. (This can be done with the car motionless, by moving the camera to the side, away from the car, as though the car had moved forward out of the picture.)

Scene 9: Insert, similar to Scene 6, of sign, "Turkeys, 18c per lb."

Scene 10: Close-up of Joe, shaking his head.

Scene 11: Insert of another sign, with slightly higher price.

Scene 13: Insert of still another sign. This one says "Turkeys, 40c lb."

Scene 14: Long-shot of a very picturesque farmstead.

Scene 15: Close-up of Joe, nodding enthusiastically. This is it!

Scene 16: Long-shot of Joe, busily getting an effective angle-shot of Sally and Susie with the farmer, as they go through the business of buying the turkey. (You can build this up **ad lib**, with shots of Joe reading meter, setting up camera, planning composition, moving camera, etc.)

Scene 17: Close-up of a large turkey gobbler, gobbling excitedly.

Scene 18: Medium-shot of Joe, from rear, squatted down getting arty angle-shot, oblivious of everything else.

Scene 19: Close shot of large gobbler, rushing toward lens.

Scene 20: Close-shot of Joe, registering sudden surprise. His camera flies up, and he leaps suddenly out of picture.

Scene 21: Close-up of turkey, gobbling. **FADE OUT.**

Scene 22: **FADE IN.** Medium-shot of family getting out of car. Sally carries a dressed turkey. Joe limps a bit, and rubs his rear. **FADE OUT.**

Scene 23: **FADE IN.** Long-shot in kitchen. Sally and the cook are busy getting the Thanksgiving dinner ready. Intercut with—

Scene 23-a: Close-ups, **ad lib**, of different operations in cooking dinner. And—

Scene 24-a: Close-ups, **ad lib**, of Joe fussing with camera, lights, etc., getting very "arty"—and also in everybody's way.

Scene 25: Close-up of cook's foot tripping over lamp-cable.

Scene 26: Very short flash, big bowl of hard sauce, mashed potatoes, or the like, flying upward.

Scene 27: Close-up (short flash) of Joe. The bowl lands, upside-down, on his head, with appropriate spattering.

Scene 28: Short flash of camera sliding along floor.

Scene 29: Close shot of Joe, sitting up and slowly removing mashed potatoes from his ear. **FADE OUT.**

Scene 30: **FADE IN.** **Ad lib** shots of family guests arriving, Joe, Sally and Susie welcoming them, etc. On last shot of group, **FADE OUT.**

Scene 31: **FADE IN.** Long-shot of the Thanksgiving dinner-table, bountifully spread, if possible with guests arriving and taking their places. Follow with—

Scene 32-a: **Ad lib** close-shots of guests eating. Intercut with—

Scene 33-a: Ad lib close shots of Joe, busily engaged in getting tricky angle-shots of his guests. Insert shots of his vacant place (no plate) and Sally urging him to come and eat. **FADE OUT.**

Scene 34: **FADE IN.** Close shot of Joe, beaming, as he sits down to his place. Pan down to his plate—just remnants: the "parson's nose", and similar unfavored portions.

Scene 35: Series of close flashes of the well-picked skeleton of turkey, empty serving-dishes, etc.

Scene 36: Close-up of Joe. He looks disgusted, then remembers, smiles in a more cheerful way, and speaks.

Title: "WELL, I GOT A GOOD PICTURE ANYWAY!"

Scene 37: Medium-shot of Joe, at table. He looks down and opens his camera. Then his expression changes to horror.

Scene 38: Close-up of the camera as it is opened. It is full of a packed mass of jammed film! (It'll be cheaper if

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EDITING A GOLF MOVIE

By ORMAL O. SPRUNGMAN

Minneapolis Cine Club

SHOOTING a golf movie is not half as difficult as trying to whip the disjointed scenes into some sort of continuity. Not unlike hunting and fishing, golf requires a stout-minded cinematographer who can forsake his sport in favor of filming when the occasion arises. He must be iron-willed enough to ignore the dictates of his friends by eliminating over the splicing-block all poorly-exposed footage as well as those scenes which add nothing to the movie itself, but might actually detract from it.

Suppose that your summer's accumulation of unedited golfing reels has reached alarming proportions. The first step is to project each reel slowly, writing down on paper a brief description of each scene. Devote a separate sheet to each reel. Your notes may run something like this:

LS	Rolling Hills Golf Course
MS	Joe Whozits practicing swings
CUT	out-of-focus shot of first hole
LS	boys walking out of club house
CU	head views only
MS	teeing off
CU	club hitting ball

LS stands for long shot; **MS** for medium shot; **CU** for close-up; and **CUT** means eliminate.

Number each sheet to correspond with each reel after projection, then sit down and rearrange the continuity on paper. With a fresh 400-foot reel on the take-up spindle, start cutting and editing in regular order.

It is not necessary to splice as you go along. Instead, cut Scotch tape into one-inch lengths of 8 mm. or 16 mm. film width, and join the ends of succeeding scenes together, spooling them on the take-up. When the entire film is in the desired sequence, go back and make the actual splices. Even while splicing, continuity can still be changed.

Maybe you've filmed five or six diffrent golf outings. Not one is long enough in itself to make a fair-sized feature, yet by finding a common thread it is possible to combine all of them in a single reel. Sometimes the additional post-golf scenes needed for continuity can be shot right in your home.

For example, you could fade in on a close-up of an end-table bearing a copy of a current golfing magazine. A hand reaches over and picks it up. It's your hand, and as you thumb the pages you blurt right out in title form that these professionals just don't know what good golfing really is. Now take the time you were out at the Drooling Duffer golf course and shot a couple birdies and maybe three eagles. Introduce your first scenes here. When they're used up, cut back to yourself. As you reflect, you simply cut in other miscellaneous golf shorts, until all your extra footage is pretty well in hand.

For a humorous touch, save one of your worst putts or slices until the very last scene, then swing back to the magazine pages, dissolve into a close-up of an article titled something like "Elementary Golf for Beginners," and show a near shot of yourself concentrating on absorbing all the information. Fade out.

Titling a golf movie should provide little difficulty. Although there are still some moviemakers who excuse their untitled efforts on the grounds that they are poor letterers, the truth of the matter is that those who are poor of pen can find numerous other satisfactory methods for preparing titles.

Most of the larger cities have titling concerns that either type, hand-set or hand-letter wordings on plain and double-exposed backgrounds in 16mm. and 8mm. black-and-white or color, at reasonable prices. In addition, other firms specialize in the sale of lettering equipment which anyone can use with good results.

On top of that, there are plastic, cardboard and metal letters, as well as jigsawed wooden alphabets and even Anagrams, which can be employed in attractive and unusual settings.

If your camera is equipped for taking single-frame exposures, you can secure some interesting effects by animating your titles. For instance, you can lay out your block letters flat on a table surface, set up your camera on a sturdy tripod, expose a foot of film, then stop the motor, raise the first letter to a vertical position, expose two or three frames, lift up the next letter, expose again, and continue until the entire block letter title stands vertically. When projected on the screen, this will show the letters mysteriously and without outside help actually lifting up to a vertical position.

Here is another stunt you may wish to try sometime. Open slightly the top drawer of your end-table, and rest the block letter wording on the drawer edge. Now turn the camera upside-down and photograph the scene as someone, outside of camera range, slowly closes the drawer. The letters apparently fall to the floor. However, when this sequence is processed and returned, cut it out, reverse it end-for-end, and you will show the table-top with drawer slowly open-

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Top: An easily-made opening title using block letters; Second: a shot like this makes an excellent beginning; Below: The big thrill of golf—will it drop into the cup? Bottom: Sound-expert George Culbertson taps the "mike" with a pencil to get effect of club hitting the ball.

There's Camera-Magic In Shooting Snow-time Movies

By JOHN L. HERRMANN, A.S.C., F.R.P.S., F.R.S.A.

Chief Cinematographer, Byrd Antarctic Expedition II

THERE'S photographic magic in fresh-fallen snow! Covering the whole landscape with a clinging white blanket, a snowfall can turn the most prosaic of scenes into pictorial gems. So if you want something really different for your personal-film library, bundle up and shoot yourself a few reels of snowy movies!

By far the best time to shoot (if you can pick your time) is right after a snowfall, while the snow is fresh and clean. And if possible, do your shooting either early or late in the day, when the low-hanging sun gives you long, pictorial shadows to make your compositions more effective, and to break up the flat, white expanse of snowy ground. Wherever you can, choose a cross-light, such as that shown in the illustration, so you can utilize these long, pictorial shadows to the full.

The chief photographic problems of shooting in the snow are both caused by the intense reflectivity of the white surface. Inevitably the sunlit expanse of a snowy scene throws an immense amount of light into your lens—and into your meter, too. Often it will shoot the meter's needle completely off the scale, leaving you guessing as to how to expose your film. Probably the best technique of exposure-metering in snowy weather is the "artificial highlight" method described by P. C. Smethurst in his recent articles in THE AMERICAN CINEMATOGRAPHER.

The second problem is that of contrast between the brilliant white snow and the darker people, shadow-areas, and so on. This can be controlled, however, so don't let it deter you. First of all, follow the old photographic rule: expose for the shadows, and let the highlights take care of themselves. Take your meter-reading on that part of the scene which is most important—usually the people, or in some cases, a shaded area rather than the strongly-lit snow. And it is a very good idea to use some sort of filtering which will help reduce the contrast, too. A neutral-density filter (fairly heavy) is excellent if you've nothing in your scene which calls for color-filtering, or if you're using Kodachrome. Otherwise, use a 5N5, which is a combination of an Aero 2 and a .50 Neutral Density, and very extensively used by professionals for controlling contrast in snow-scenes. If you're shooting snow-scenes at high altitudes, by the way, avoid the heavier filters—red ones especially—as they'll only increase contrast, and at high levels the thinner, clearer air often makes even a light filter correct the sky rather heavily.

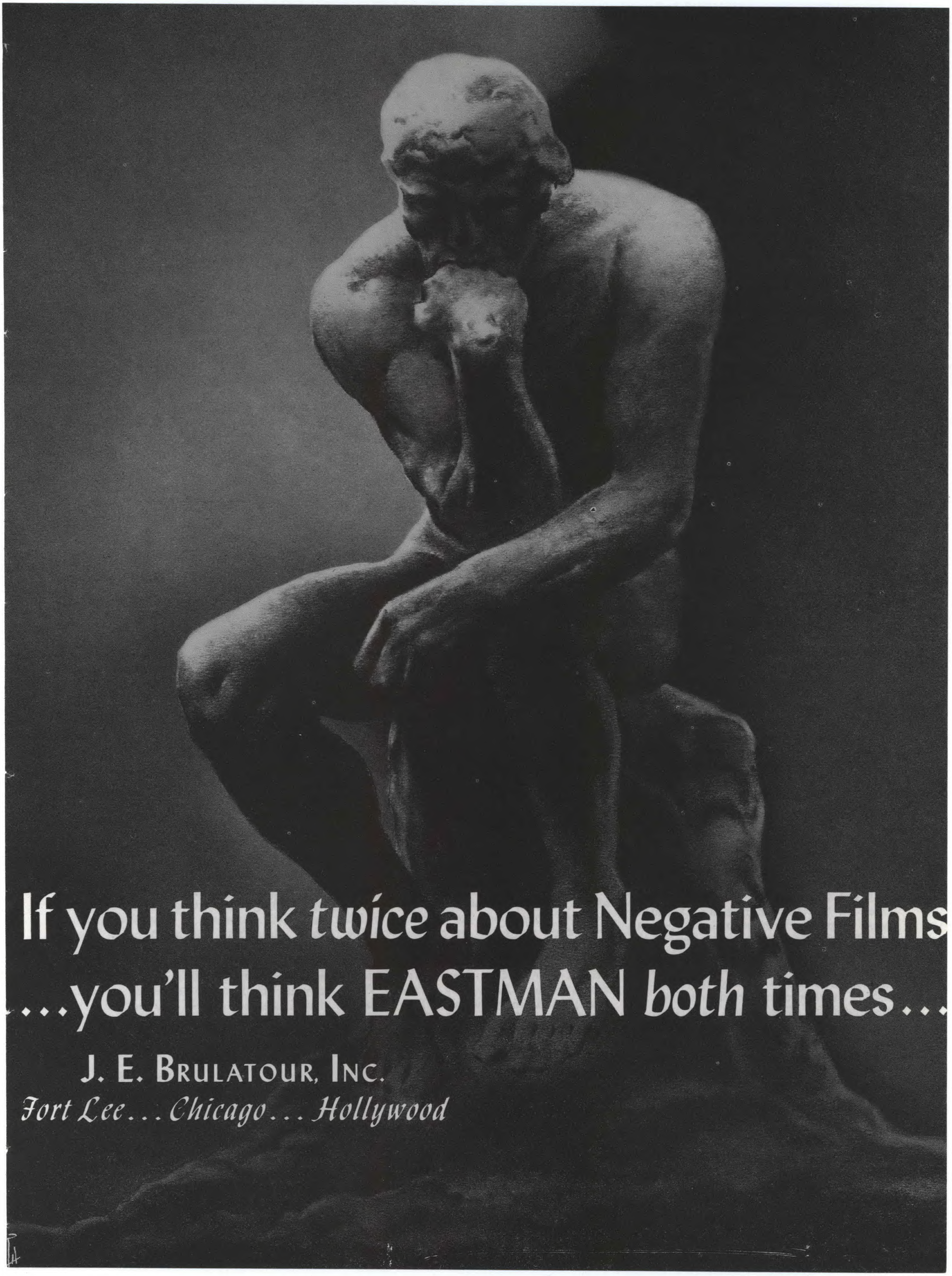
As it is impossible to make any pictures during an actual blizzard, you can get an excellent substitute by shooting your "snow-storm" scenes in a surface wind, that is, a wind that is drifting the snow along the surface of the ground and up to about three feet in height. That's the way we made the snow-storm scenes you saw in "Little America."

If you're working in really cold regions, you may encounter a problem like the one we faced in the Antarctic—the effect of extreme cold on the camera and its lubricants. It's a good idea to check with the manufacturer and see what is the lowest temperature recommended for the oil with which it is lubricated. If you expect to be shooting in yet lower temperatures, have all the oil removed and then re-lubricate it with special oil that has been tested for extreme low temperatures. The manufacturers can advise you on this; also, the U. S. Weather Bureau has a special oil they use on their instruments in the Polar regions, and which is excellent for cameras.

Next—and this applies to some extent regardless of whether you're in extremely cold regions or just normally cold ones—remember that when you take a camera from a warm room or a heated automobile into the cold outside air, any moisture on camera or lens will freeze and cause the moving parts of the mechanism either to become sluggish, or perhaps not to operate at all. If the moisture is on the lens it will form ice and ruin your exposure.

So it is always well to heat your camera before going out into extreme cold weather, thus baking out the moisture. This can be done over a large-wattage

(Continued on Page 547)



If you think *twice* about Negative Films

...you'll think EASTMAN *both* times...

J. E. BRULATOUR, INC.

Fort Lee... Chicago... Hollywood

AMONG THE MOVIE CLUBS

Lecture Series for St. Paul

The St. Paul Amateur Movie Makers Club is offering its members for the first time a comprehensive course in home movies. The course will consist of a series of five lectures to be delivered by experts in different phases of motion picture production. Robert A. Kissack, Jr., Director of Visual Education, will speak on "Subject Matter." Mr. Kissack, with the experience he has gained in directing numerous films and in planning scenarios and production schedules, is in a position to help amateurs improve the general interest of the films they produce. Norman Anderson will cover "Camera Operation." This lecture will include advice and information on focusing, the use of lenses and tripod, placement of camera, the systematizing of camera settings as well as trick photography and the use of accessories. Paul Wendt, Chief Cameraman at the University of Minnesota, will discuss "Lighting and Kodachrome." Topics will include light placement for highlighting, edge lighting, spotlighting, backlighting, the avoidance of unwanted reflections, and the matching of color tones and illumination in succeeding scenes especially as applied to Kodachrome. Russell Hamilton will explain the use of lightmeters and impart valuable information on titling. Everett Miller, sound engineer, will endeavor to show how all amateurs can easily provide a sound accompaniment of one type or another to increase the dramatic interest of their films. He will discuss the use of double turntables, interlocking mechanisms and sound tracks. Each talk will be followed by a round-table discussion. This is a series that offers serious-minded amateurs an unusual opportunity to acquire a really comprehensive background of their hobby from qualified exponents and should result in some superior pictures from members of the St. Paul A. M. M. C.

The meeting of October 7 was scheduled to hear Ralph A. Woolsey of the Bureau of Information, Department of Conservation for the State of Minnesota but Mr. Woolsey was called out of town at the last minute and members were fortunate to have instead Kenneth M. Wright, Master Photographer, of the Kenneth M. Wright Studios in St. Paul. Mr. Wright showed some of his interesting films made during hunting and fishing trips and answered questions for the members. The screen fare also included the initial efforts in filming 8mm. Kodachrome of Miss Ione Schlott and Mrs. C. Tippie.

AGNES MARX, Secretary.

Ladies' Night at L. A. 8mm.

Ladies—real and otherwise—at L. A. 8mm. Club's Ladies' Night. Left, contest-winners Louise Arbogast, Esther Funk and Betty Barney. Right, the visiting "lady" filmers, who probably prefer to hide behind their aliases of Pansy, Lottie, Daisy, Addie, Wilhelmina and Sweetie-pie. Photos by James E. Ridge, Jr.

Mere man took a back seat at the October meeting of the Los Angeles 8mm. Club when the Club's many lady members took over the running of the entire evening's session, with Secretary Betty Barney presiding. Highlight of the meeting was the receipt of a telegram from the Virginia City 9.5mm. Club announcing that a delegation of the latter club's lady members, designated as Pansy, Lottie, Daisy, Addie, Wilhelmina and Sweetie-pie, were coming to join with the L. A. 8's for the evening. After the first concerted rush by the Club's male membership had dispelled the smoke from the visitors' corncob pipes and amorous eyes had peeked under poke-bonnets it was found, to everyone's dismay, that the visiting "ladies" were none other than the very male members Armstrong, Cadarette, Loscher, Zeman, Stull and McMurray.

After order had been restored (a difficult matter due to the irrepressible roguishness of "Sweetie-pie" Zeman), the meeting continued with the introduction of such visiting notables as Harold Mendelson, Photographic Editor of the Los Angeles "Times," President Moore of the Metro-Goldwyn-Mayer Studio Camera Club, President Hight and Secretary Shandler of the Los Angeles Cinema Club, and a very special welcome to member John K. Northrop, long absent due to the pressure of building Northrop airplanes for the U.S., Britain, Norway, Holland, etc.

Past-President Al Leitch, who heroically took on himself the chairmanship of the Judging Committee for the Ladies' Contest, announced the winners, which were then projected by an all-feminine projection staff. The winners included Louise Arbogast, First Place, for her "High Spots of a Vacation;" Esther Funk, Second Place, for "Family Portrait;" and Betty Barney, Third Place, for "Just a Blitzkreig." The evening's program was rounded out by showing other entries in the contest, among which were "Beyond the Valley," by Elizabeth Earl; "Canadian Wild Life," by Margaret Bethouski; "Monuments and National Parks," by Lucille Linn; "North of the Border," by Margaret McGarry; "Tonopah, Nevada," by Gertrude Millar; "Farmer's Market," by Everetta Brandes; "Hawaii and Death Valley," by Elizabeth Ackerman; "Amid Sierra Heights," by Elizabeth Earl, and "Catalina Island" by Betty Barney. Esther Funk, Elizabeth Earl and Phyllis Zeh served as a special Ladies' Technical Committee.

BETTY BARNEY, Secretary.

British Amateurs Make Defense Films

Despite the war, amateur filmers and amateur film societies in Great Britain appear to be carrying on. Reports from British sources indicate many clubs are continuing their meetings, and in some instances production activities as well. Several have been making instructional films in connection with such wartime duties as Air Raid Precautions, Aircraft Spotting, and the like.

D. C. Doings

At the October meeting of the Washington Society of Amateur Cinematographers the judges awarded first prize to Leo T. Robbins in the 8mm. contest. The subject of Mr. Robbins' film was the National Zoological Park and scenes in and around Washington. Members Bruer, De Janette and Able were runners-up. The outstanding event of the evening was the screening of "A Comedie in Color" by Mr. Milton Pike, the outstanding color artist of the city and the past secretary of the Washington 8mm. club. The subject of Mr. Pike's film concerns itself with dedications and other official acts about the Capitol where clowning has marked the ceremonies. Mr. Pike also screened a picture filmed during a trip through Florida which introduced several novel titling ideas and contained scenes of the oldest city, the largest fort and other points of interest.

During a short business session the president, after thanking certain officers of the club for their untiring efforts, called attention to the dinner to be held on November 22 to which the presidents of the other cinema clubs in the city had been invited and at which would

(Continued on Page 544)

TEAMWORK

ALL three Eastman negative films contribute to the over-all excellence of today's productions. Although they specialize in different fields, they join forces readily because of one important attribute enjoyed in common—unvarying high quality. Eastman Kodak Company, Rochester, N. Y.

J. E. BRULATOUR, INC., ***Distributors***
Fort Lee Chicago Hollywood

PLUS-X
for general studio use

SUPER-XX
when little light is available

BACKGROUND-X
for backgrounds and general exterior work

EASTMAN NEGATIVE FILMS

HERE'S HOW

For many years one of the most important services THE AMERICAN CINEMATOGRAPHER has performed for its readers has been the answering of technical questions about all phases of amateur and professional movie-making. These questions are usually answered by individual letters, to permit going into the necessary detail. However, in response to many requests, we also publish, in abridged form, some of these questions and their answers which we believe may be of interest to other readers. THE EDITOR.

Color of Film-Base

Do all of the Eastman cine-films have the same color base, so that positive, ordinary pan, Super-X and Super-XX can be mixed together on one reel without showing differences in film quality (other than grain) on the screen?

S. Ballen

All of the films you mention are coated on a celluloid base of the same composition and coloring, so that they may quite successfully be intercut in the same reel without showing noticeable changes in coloration on the screen. Aside from the actual coloring of the film-base, another very important factor in determining the coloring of a black-and-white projected image is the type of developer used in processing the film; some developing agents, like pyro, paraphenylene-diamine, etc., tend to dye the image and give a warm-toned, sometimes even brownish, picture, while others, like metol, give a more blue-black image. All of the Eastman films, however, are developed in the same type of solutions, so here again the color-quality would be uniform. There is a bare possibility that you might detect a slight difference in coloring between films shot today and others shot several years ago. However, the Eastman engineers have been very succssful in keeping both their film and its processing uniform, so even this possibility is minimized. However, if you attempt to intercut black-and-white films made by *different* manufacturers, there are almost sure to be noticeable differences in coloration on the screen, as some manufacturers prefer a warm-toned image, and others a blue-black one. Wherever possible, it is always best to keep to one type of film—or at least film of one manufacture—from the start of a picture to the finish.

Matched Lens-quality

Are the differences in lens-correction between the various lenses of different manufacturers so great that if one uses four different lenses, each made by a different manufacturer (i.e., Eastman, Taylor-Hobson-Cooke, Zeiss, Hugo Meyer, etc.) on a turret camera, a perceptible difference in picture-quality would appear? In other words, should lenses be matched?

S. Ballen

The answer to this question depends upon the type of use to which the lenses are to be put. To meet the exacting demands of major-studio professional camerawork, lenses should most certainly be carefully matched. For example, certain makes of lenses have the reputation of having a pseudo-soft quality which, while giving an actually sharp image, is very flattering to women players. If you intercut a shot made with one of these lenses with a shot made of the same player using a crisper-cutting objective, a professional cinematographer would notice a definite difference in quality on the screen. Some super-critical experts, such as Joseph Walker, A.S.C., can detect differences—unnoticeable to most observers—between individual lenses of the same design, focal length and manufacture.

However, for most amateur use and even for most 16mm. commercial filming, making such distinctions as these would be splitting hairs much too fine. So in general we can say that if you use four equally modern lenses from four such top-flight lens-makers as you name, the results on the screen should be quite adequately uniform.

Certain exceptions must of course be made. If some of the lenses are much older than others, and hence of earlier design, there may be definite differences. For example, lenses made before the advent of Kodachrome and its predecessor, Kodacolor made extreme color-correction so important in substandard cinematography may very likely not be so well color corrected as newer lenses of the same make. The same is true of lenses made before panchromatic film was available for 16mm. use. There is also always the possibility that a lens, while looking outwardly all right, may have suffered some optical damage in its long trip from factory to user, while another lens, apparently old and battered, may be optically perfect. And in anything connected with lenses there is also a definite psychological aspect: two different people may see (or think they see) entirely different qualities in any lens or lenses. We've known some top Kodachrome experts who swear the only lens through which Kodachrome should be made is the Kodak Anastigmat—and others, equally capable, who go to great lengths always to use Cookes for the same purpose. And we've seen intercut Kodachrome results made with both types, which matched so closely only an expert could tell which was which! The safest rule to follow in judging any lens is: make a test, and if the result conforms to your idea of what good picture-quality is, the lens is all right for your use—no matter what anyone else may say.

Color Correction

Would your answer to the above question by any different for black-and-white and for color? If color-correction relates to definition only, and does not change the color transmitted, then why do so many photographers feel that color-correction is more important for shooting color than for black-and-white?

S. Ballen

Photographers who feel that color-correction is more important in shooting color than in shooting black-and-white are definitely mistaken. It shows up more obviously in shooting Kodachrome, Technicolor, or the like, but it is quite as important in black-and-white. Professional cinematographers found that out many years ago, at the time panchromatic film and incandescent lighting were displacing the previous ortho film and arc lighting. Many of them, when they changed to the newer film and lighting, suddenly found their black-and-white pictures were not as sharp as they had been accustomed to getting. When the optical experts were called in, they found the cause in lenses that were not color-corrected. And when properly color-corrected lenses were used, the results with pan film and inkie lighting at once improved.

The reason is that with the older lenses, light-rays of different colors were not brought to a focus in the same plane. The blue part of the image might focus at one point, the yellow at another, and the red at still a third point. Even though this displacement might be measured in very small fractions of an inch, it was there. As long as the image was made on the old ortho film, which was sensitive largely to blue, and hardly affected by yellow and red, color-correction wasn't important. But when panchromatic film—sensitive to all colors—came in, and with it the more yellow-orange Mazda light, the situation changed. The blue parts of the image might still be sharp: but the yellow, red, etc., portions would be blurred. This blurring might be only microscopic, but it was enough to debase the optical quality of the image. When color-corrected lenses were used, which brought all the colors to a focus at more nearly the same plane, the image naturally became sharper and more pleasing.

This is just as true today as it was fifteen years ago, and holds good whether you are shooting on 35mm., 16mm. or 8mm. film. As long as you are making your picture on color-blind ortho film, color-correction is not too vitally important: but as soon as you put panchromatic film behind your lens, you'll get the best results if you use a color-corrected lens. And the more perfect the color-correction of your lens is, the better and sharper will your results be, either in black-and-white or in color. Incidentally, don't overlook the fact that this applies equally to projecting a color film, so that for best results in Kodachrome you should use a color-corrected lens on your camera and a color-corrested lens on your projector, too.

SPEED IS IMPORTANT

. . . *but,* in panchromatic movie film, there are many characteristics besides speed which are essential to good screen results. Such as these basic qualities of Ciné-Kodak Film—

GRAIN Scientific manufacturing and processing of Ciné-Kodak Super-X and Super-XX "Pan" Film result in minimum film grain consistent with high speed—and maximum screen magnification of clear, clean-cut images.

PANCHROMATISM The wide-band panchromatic sensitivity of Ciné-Kodak Film produces the most natural black-and-white rendering of color—and truest response to filter use.

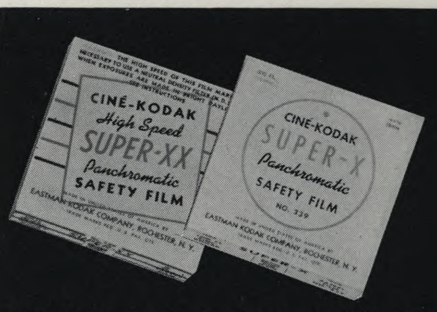
BRILLIANCE Contrast, latitude, resolving power—these are the qualities in Ciné-Kodak Film that enable a good projector to produce the proper snap and sparkle on the screen.

CORRECTION The exclusive automatic corrective processing given to Ciné-Kodak Panchromatic Films in Eastman laboratories compensates for all normal exposure errors, assures you uniformly satisfactory results throughout the widest range of light conditions.

VALUE The uniform reliability and superior qualities of Ciné-Kodak Films, in terms of movies made and saved, are factors beyond price. With processing included in the original attractive prices, Ciné-Kodak Super-X and Super-XX Films make for true picture economy.

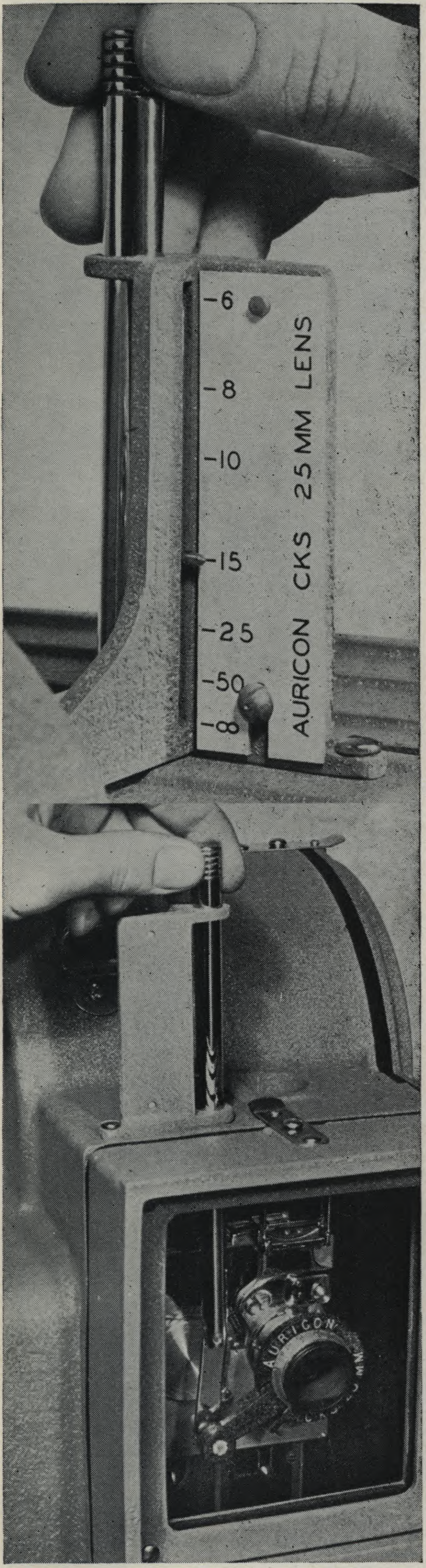
AND SPEED, OF COURSE All possible speed with the least possible grain—this you can always expect in Ciné-Kodak Super-X and Super-XX "Pan."

EASTMAN KODAK COMPANY, Rochester, N. Y.



Ciné-Kodak Super-X Panchromatic Film: **8-mm. rolls—$2.40, 8-mm. magazines—$2.70; 50-foot 16-mm. rolls—$3.45, 100-foot rolls—$6.40, 16-mm. magazines—$3.75.** ***Ciné-Kodak Super-XX "Pan":*** **50-foot 16-mm. rolls—$4.00, 100-foot rolls—$7.20, 16-mm. magazines—$4.30. All prices include processing.**

◆◆◆THE SHOWCASE◆◆◆



"Follow Focus" for Auricon Blimp

A simple and practical follow focus device is now available for the Auricon CKS Camera Blimp. This new accessory is easily mounted on the blimp as a screwdriver is the only tool required.

With the Cine-Kodak Special Camera enclosed in the soundproof blimp during the shooting of a talking picture scene, movement of the plunger-rod vertically up and down will focus the lens without opening the blimp.

A rubber grommet at one end of the connecting link between the lens-ring arm and the plunger-rod prevents camera vibration from reaching the outside case of the blimp.

Interchangeable cards, supplied with the focusing device, allow calibration of any individual lens, or a follow-focus card can be made up for the particular scene being photographed. If this is done, the card will read "table, doorway, chair," etc. Another method is to mark the follow-focus card to match chalk marks on the floor which show camera positions used during the scene.

Lens-rings carrying the necessary lever-arm are available for the 15mm. (wide angle) lens, the 25mm. (one inch) lens, the 50mm. (two inch) lens, and the 63mm. (two and a half inch) lens. When mounted on the lens, a pin carried on the lever arm of the lens-ring engages with the connecting link of the plunger-rod. Lenses may be instantly interchanged while the follow-focus device is in place. The lens rings clamp over the regular focusing ring of the lens. No alteration to camera or lenses is necessary when they are used with the Auricon Blimp and follow-focus.

Fastest Twin-8 Film

Twin-8 Triple-S Pan Reversible—the fastest film yet available for users of double-run 8mm. cameras—is announced this month by Agfa Ansco. Three to four times faster than twin-8 Hypan, the new film should be welcomed by 8mm. filmers for the increased subject-range it provides. While the manufacturers do not give exact Weston speed ratings for their new 8mm. product, they state that the speed of this film is the same as that of the firm's 16mm. Triple-S Pan, which is rated in the Weston speed-chart as 100-125 to daylight, and 80 to Mazda light. With film of this speed available, 8mm. users should be able to accomplish many of the shots heretofore considered restricted to 16mm. and its higher-speed films.

In addition to balanced panchromatic color-sensitivity, the new material is stated to provide remarkably fine grain and brilliant gradation, both of which are essential to really satisfactory 8mm. camerawork. Protection against halation is afforded by an exclusive brown silver-coating between the emulsion and the base (removed during processing). A special lavendar-tint base aids in giving the film excellent projection quality. The emulsion offers surprisingly wide latitude to compensate for inadvertent misjudgment in exposure, as well as good resolving power to insure clear, sharp pictures.

Made by Agfa Ansco in Binghamton, New York, Twin-8 Triple-S Pan Reversible is supplied in the usual 25-foot camera spools (50 feet projection-length) which may be processed at any Agfa Ansco laboratory. The price is $2.65 per roll, including excise tax.

Slidetitles For Minislides

Film titling service is no longer confined to movie-makers, according to an announcement just received from Bell & Howell. "Good titles will add just as much interest to a show of projected still pictures," says B&H, "as they do to a movie show, and we are now prepared to furnish our entire selection of 79 Title-Craft backgrounds on Slidetitles."

The announcement states further that the Slidetitles, furnished on 35mm. film in 2"x2" standard cardboard mounts, are available in two two-tone combinations for use with color transparencies: green with gold overtones and gold letters or brown with gold overtones and gold letters. Title-Craft's stock of backgrounds include two types, photographic and poster, and is said to contain subjects suitable for every season and a wide variety of occasions. Prices on Title-Craft Slidetitles on poster backgrounds begin at 25c per title, on photographic backgrounds at 35c per title.

Film Source List

The Victor Animatograph Corporation, Davenport, Iowa, manufacturers of 16mm. motion picture cameras and projectors, announce the release of their Eighth Edition Victor Directory of 16mm. Film Sources. Owners of 16mm. projectors will relish this news as this source directory actually tells where to send for films on the subjects in which they are interested. There are over 600 sources listed therein and 225 subjects covered in silent and sound films.

In the Educational Section will be found pages of information devoted to the film libraries and rental service available from universities, colleges and departments of education in each state. The men and women directing the activity of these libraries discuss the utilization of the motion picture in education of information pertaining to the use of films in the classrooms, in churches, in and prophesy the future growth and development of this medium of instruction, based on their experiences and observations in the field. County and City School Cooperative Film Libraries, as well as independently-owned City School

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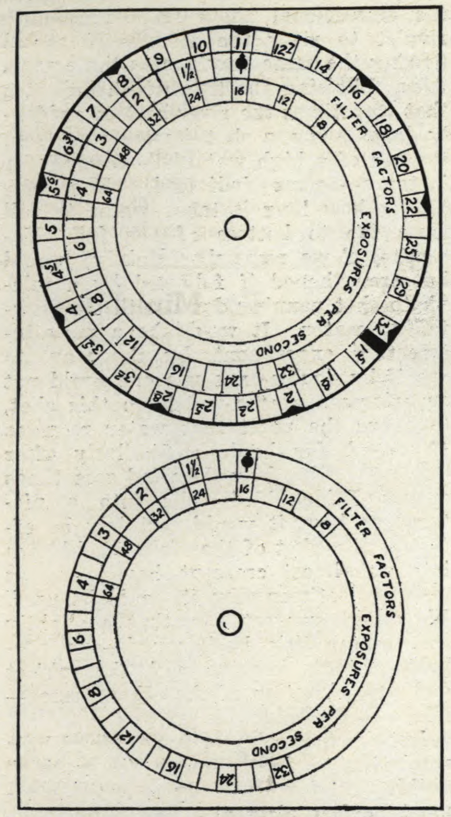
The IDEA EXCHANGE



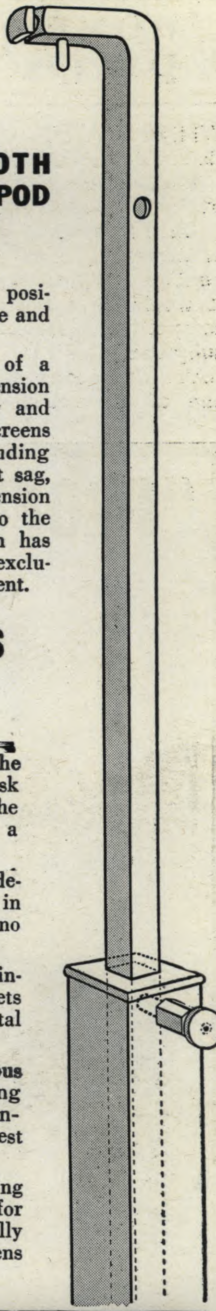
Filter Factor Calculator

Your exposure-meter will tell you what the correct exposure for a scene is as long as conditions are normal—16-frame camera-speed, no filters, and so on. But you usually have to figure out for yourself any changes from this normal procedure. Here's a handy little calculator I made some time ago which greatly simplifies this problem. It can be used with any camera and any film.

The sketch shows the basic outline of the calculator. You can make an accurate copy of the two discs shown, or even clip out the sketch, and cement the paper onto two discs of heavier cardboard, celluloid, or the like. Then cut out the two discs, and in their centers punch accurate holes. Fasten the two together by these center-holes, one on top of the other, so that the smaller disc overlaps the larger one as shown in the upper sketch, and can be revolved freely. An office paper-rivet is as good a way as any to fasten the discs together.

To use, place the little black pointer on the upper disc opposite whatever *f*:stop indication on the lower disc your meter gives as the correct normal exposure. Then—the correct stop for any filter-factor or camera-speed will appear opposite that factor or camera-speed. If you have both filter and camera-speed changes to consider, first find one; then place the indicating pointer at this reading, and find the other in the usual way.

E. WALKER.



Only the Da-Lite Challenger Gives You

SQUARE TUBING IN BOTH THE CENTER ROD OF TRIPOD AND THE EXTENSION SUPPORT

Square tubing in *both* assures positive alignment of the screen surface and prevents twisting.

Solid Square tubing (instead of a thin metal strip) in the extension support gives unequalled rigidity and strength. It makes all sizes of screens from 30" x 40" up to and including 52" x 72" hang perfectly, without sag, wobble, or possibility of the extension rod bending, even when *raised* to the *highest position.* No other screen has this essential feature. It is an exclusive, patented Da-Lite improvement.

AND THESE OTHER DA-LITE FEATURES

(Reg. U. S. Pat. Off.)

SMOOTHER OPERATION—The extension rod fits snugly inside the center rod tubing of the tripod, yet it moves freely without risk of injury to the fingers in its operation. The Challenger is the only screen that can be adjusted in height merely by releasing a spring latch and raising extension rod.

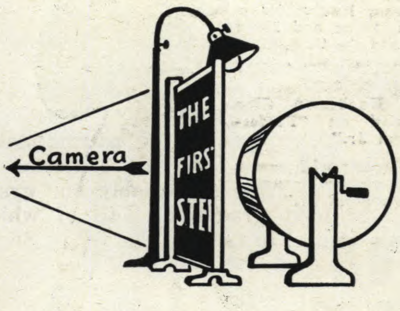
POSITIVE SCREEN HEIGHT—When the Challenger is raised to desired height a spring latch pushes plunger into a drilled hole in the extension rod and locks it firmly in position. There is no friction lever to slip. No thumb screws to tighten.

STURDIER CONSTRUCTION—Steel stampings only are used instead of castings (which are liable to break.) The handle brackets encompass square tubing instead of being attached to the thin metal part of the case.

GENUINE DA-LITE GLASS-BEADED SURFACE—This fabric, famous for its light-reflective qualities, is recommended by all the leading projector manufacturers and is chosen by leading industrial organizations for their sales and training films, to insure the brighest and clearest projection.

GREATER VALUE—Volume production and efficient manufacturing methods, perfected through 32 years of experience, account for Da-Lite's greater values. You can get a Da-Lite Screen for actually less than your second choice screen would cost. See Da-Lite screens at your dealer's! Write Dept. 10 AC. for literature!

DA-LITE SCREEN COMPANY, Inc.
2723 North Crawford Ave. · Chicago, Ill.



Tricky Title

The other day my wife came home with a big package of dusting-powder which was packed in drum-shaped box with narrow mirror-strips mounted lengthwise of the drum. I appropriated it to solve a titling problem in my current picture. The set-up I used is shown in the sketch. The title is made up with clear letters on an opaque background. (A photographic negative made by copying black letters on a white field is excellent for this, or you can letter your own on a sheet of glass). Back of this I mounted that mirrored drum. Shooting the title, I lit the drum with a Photoflood (a Dinky spotlight, if you have one, would be still better) and revolved the drum as I shot. This pro-

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HOME MOVIES PREVIEWS

WHITE WATER

Scenic-documentary, 350 feet 16mm. Kodachrome.

Filmed by **C. A. Willis.**

Once in a while we have the pleasure of screening films of really exceptional quality. "White Water" is such a film: it would be a top prize winner in any competition. Despite the fact that its subject-matter is confined to trees, rocks, and snowy white waterfalls, it is one of the extremely few films we've seen which brings out the full richness of the Kodachrome process. The coloring is superb, made so by almost professionally perfect lighting and exposure. It is one of the most perfectly-exposed reels of Kodachrome we've screened; there are only a scant few scenes in which the highly reflective white water seems to have fooled the maker, causing him to err slightly on the side of overexposure.

From an audience-interest viewpoint, the film stands up remarkably, though it hews strictly to the line of being a study of Yosemite's picturesque waterfalls, with no intrusion of conventional "human-interest". Handled as well as this film is, it doesn't need any such artificial aid.

The maker asks for suggestions for improving his picture. We can offer only a few, and they are small ones. In the introductory sequence, it would get the picture started more smoothly if in the transitional shots from trickle to rivulet to river the streams were all flowing the same way across the screen. Also, following the title which indicates that sometimes the river-bottom suddenly drops away, a shot downstream from the top of a high waterfall—Vernal, for instance—seems indicated. The title telling how long it takes water to fall from top to bottom of one fall (Yosemite, if we remember rightly) would be strengthened if followed by a telephoto shot panning down with the slow-falling water. It would be a very interesting experiment, by the way, to see if by double-exposure one could not superimpose a stop-watch on this shot, to prove the point that water requires 10 seconds for the drop. Similarly, after the title telling how the wind sometimes curves Bridal Veil falls into a picturesque bow, it would certainly be effective if a shot of that fall, wind-blown into an almost crescent-shaped arc, as we've sometimes seen it, could be used. We might suggest, too, that a slightly less ornate title background—one perhaps more in keeping with the subject and the coloration of the other scenes—might be desirable.

But in general, we hope Mr. Willis won't try to do too much "improving" on his film, for it's likely to spoil an almost perfect picture!

JACK FROST'S RIVAL, INC.

Semi-scenario film, 250 feet 16mm., black-and-white and color.

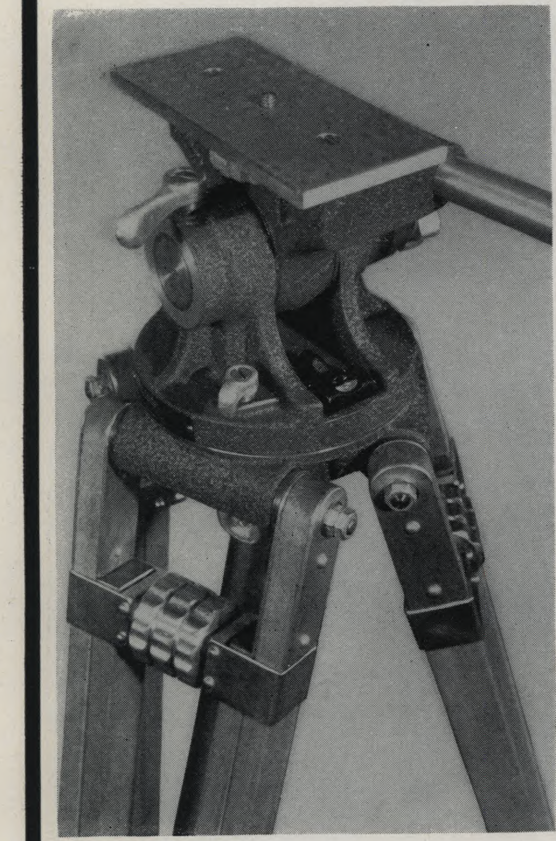
Filmed by **Stanley** and **Maryjane Bean.**

Here is a film which began with a clever little idea, but which hasn't quite jelled in the carrying-out. Based on the premise of a moviemaker who is unsatisfied with his drab black-and-white pictures, and calls in "Jack Frost's Rival, Inc." (portrayed, we suspect, by the young son of the family), the film begins naturally in black-and-white, and then switches to color.

The weak spot is in the handling of this switch, especially as after the first few scenes of color, the film goes back for a while to monochrome, before finishing in color. We'd suggest it would be stronger to stay with color once the switch has been made. As a suggestion, we'd like to have seen the young "painter" pouring his colors into a carton of Kodachrome, and handing it to the filmer with the advice that this would help him. Then a series of black-and-white shots of the moviemaker at work, followed by a return to the projection-room sequence, with a "wipe" to a concluding series of color-shots which would show in color the scenes we'd just seen (in monochrome) the camerist shooting, and possibly also repeat in Kodachrome some of the black-and-white shots used at the start, with which the filmer had been originally disappointed.

"PROFESSIONAL Jr." TRIPOD

by CAMERA EQUIPMENT COMPANY



The "Professional Jr." tripod is the most rigid on the market and has many features which are usually found only in regular heavy professional models. For example, it has a wide flanged base to assure steady panning, super smooth action of the friction type tilt head and a pin and trunnion of generous size to minimize the effects of wear and make possible smooth tilt shots.

A sturdy handle screws into the top to control the movements, but for carrying, is removed and screwed into a socket in the center of the base. Wooden legs locked by a quick release knurled knob can be adjusted for height by a twist of the knob set between each leg. The extended height of the tripod is 86½", low height 46". Top plate can be set for 16mm Eastman Cine Special with or without motor as well as the Eyemo 35mm camera with or without motor and 400 ft. magazine. It will also take the DeVry 35mm camera. The tripod legs are reenforced to the head to assure steadiness at all positions.

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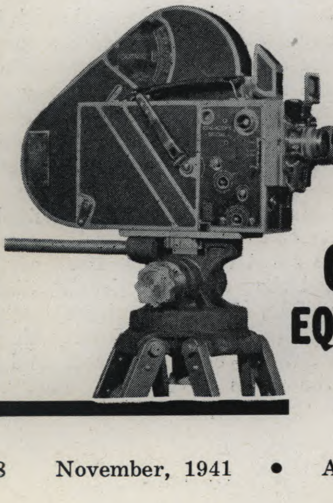

"Professional Jr." tripods are being used by many leading Newsreel companies, 16mm and 35mm Sound Studios and the U. S. Government for important work.

Left: 16mm Eastman Cine Special mounted on "Professional Jr."

Right: 35mm Eyemo with motor and 400 ft. magazines mounted on "Professional Jr."

CAMERA EQUIPMENT CO.

1600 Broadway
New York, N. Y.

Norwood Meter

(Continued from Page 513)

gave the meter a try-out. The schedule was seven shooting days, which meant that we had to average a good deal more than 60 set-ups per day. That meant that was no time to fiddle with anything complicated between takes. At the same time, if you depended on the meter, you had to do it whole-heartedly, for on a short-schedule picture there's no such thing as making two takes of a scene just because you aren't sure whether your judgement or your meter is right. And retakes aren't exactly popular, either.

"I depended completely on the meter. The negative went through the usual processing of the Consolidated laboratory, and was given normal treatment in every way. They used the test system: and where their normal developing-time for that type of film is 9 minutes, every inch of my negative on that picture went through between 8 minutes 45 seconds and 9 minutes 15 seconds! And we had about everything possible in the picture—studio interiors, location scenes at Big Bear and Sonora, and Infra-Red night-effects, to say nothing of a couple of days' location work which had to be shot under distinctly unfavorable light in cloudy weather. The meter certainly proved its worth to me on that assignment!

"In addition to using the meter conventionally, I found it possible to use it in several ways in which it proved a great time and trouble saver. For example, often on short-schedule pictures the budget just doesn't permit the use of stand-ins, and at the same time you hate to make your principals stand in for themselves under the hot lights. I found that I could often light my scene using only the meter—and when the players stepped into place, my lighting was perfect.

"In doing this, I would take individual meter-readings of the key parts of the set—back-wall, important highlights and shadows, and so on, thereafter balancing the set-lighting by eye to these known standards. Lighting for the people, I simply used the meter as a stand-in. Holding the meter's dome-shaped pick-up in the place the actor would occupy, I would check each component of the lighting—key-light, filler, back-light, kicker, etc.—with an individual meter-reading. If these were right to fit into my normal balance, I'd then take a meter-reading of my whole lighting, and set the lens accordingly. I seldom had to make the slightest change in my modelling, and it proved a great time-saver, lighting the scene without having to have the people in it.

"While we were on location, we struck some really tricky weather when a cloudy spell set in. One minute the sun would be under a cloud; the next it would be shining rather brightly. If we were to make our schedule, we had to shoot anyway, in spite of the weather. So I placed the meter on top of the camera's finder, in a position where its pick-up received the same sort of light that the actors did. Then, right while we were making the shot, by assistant could keep one eye on the meter and the other on the lens aperture setting, and 'follow focus' on exposure, opening up or stopping down as the light grew weaker or stronger. While I knew that the idea ought to work in theory, I was very pleasantly surprised to see how smoothly it worked out in practice—a tribute to a very capable assistant and an efficient, sensitive meter.

"For that matter, I found it so handy that I'm planning to rig up a holder for the meter atop the matte-box, so that we can follow-focus on exposure in the same way when in the future we run into the problem of making long pans that carry our actors from sun to shade, or through a half-circle change in lighting.

"In making filtered Infra-Red night-effect shots, the meter proved surprisingly accurate, too, even though the manufacturers make no claim for any unusual infra-red sensitivity. So far, they haven't worked out an adapting plate for Infra-Red film: but I got excellent results using the plate designed for the speed-factor of the old DuPont Type I, and then making the usual 12-times compensation I've been accustomed to making for these 'black-light' shots.

"To summarize my impressions, I'd say this new meter isn't going to make any social distinctions. The men who

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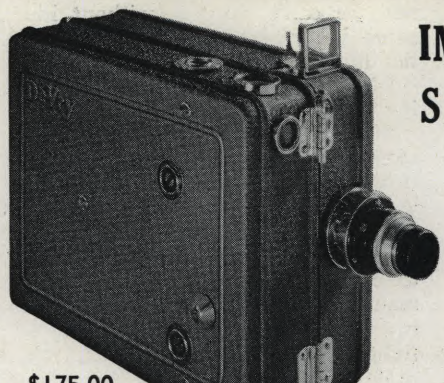

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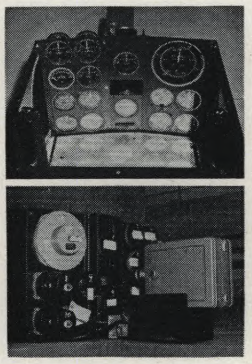

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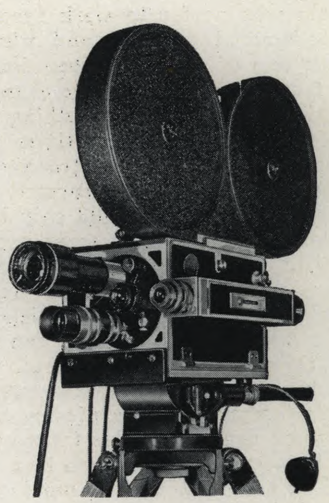

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are filming the big major-studio 'A' productions seem to be finding it useful—but on this little seven-day 'quickie' I found it just as invaluable as they did; maybe even more so. For years we've all of us been asking for a really precision-built meter for professional use; and now it looks very much as though we have it at last!" **END.**

Corrective Make-up

(Continued from Page 514)

but color as well with which to work. Like a corrective monochrome make-up, the corrective make-up for color must be handled with precision, but if it is so applied, it can prove its worth even more quickly.

In our work, we have always had men who were followers, rather than leaders. We have make-up men who apply shadowed make-up simply because they have heard that other members of their profession use it—men who seem to approach their work without any clear understanding of the *how* and *why* of what they are attempting to do. In the same way, we have some cinematographers who prefer to work according to time-honored formula, and who, either from fear of something they don't know, or from mere reluctance to change, seem instinctively to oppose anything new and different. For men of these types, I would certainly advise strongly against any attempt to employ corrective make-ups, for the results could only be disappointing. But for the more progressive artists of our two professions, I am certain that corrective make-ups, applied and photographed with precision and a real appreciation of what can be done by these means, and above all with the genuine understanding and cooperation which experience has proven can exist between equally capable make-up artists and cinematographers, can be a valuable aid to our joint goal of putting today's stars on the screen at their glamorous best, and with the greatest ease and efficiency. I sincerely hope that this necessarily brief discussion of the make-up artist's aims in using corrective make-up will aid in bringing about that better understanding between the progressive members of the two crafts. **END.**

Barnstormers

(Continued From Page 515)

be there on the dot, that . . . well," Bob was out of breath. ". . . it's your package to worry about the technical and photographic end."

"Guess you're right," I agree. "Then comes the day we cameramen hit town."

"What'ya mean . . . cameramen . . . ?" Bob snorted. "You mean THE cameraMAN . . . and then the things that can happen that first day. A beautiful parade all lined up and it rains."

"So we shoot in the rain," I mutter disgustedly at the thought of ruining good film.

Bob goes on paying no attention to me. "A perfect shooting schedule made out . . . two hours for a hundred-foot commercial with interiors and exteriors . . . we arrive all ready to roll it in the can . . . but the boss is out of town and we can't shoot it without him because he bought the commercial just to see himself in color in the first place . . ."

"And what does that do to the shooting schedule," I grin.

"I don't have a shooting schedule anymore and for the duration of the picture," Bob moans, then adds. "Or at least not an air-tight one." "I'll say it's not air-tight," I grimace. "And you're not alone with troubles about this time. Don't forget that every cameraman has to break in a new assistant in every town. Teach him how to set up lights ready for placement, roll the cable to the fuse box without kinking and causing breaks in the line, to keep an eye on the cameraman while shooting in order to read hand gestures in controlling the lights . . ."

Bob laughs and breaks in. "And when you think he is catching on he quits because he isn't used to working twenty hours a day and you have to find another assistant in the middle of shooting—and still keep on your shooting schedule for another town is waiting for you cameramen four or five days hence."

I attempt a grin. "But that isn't the biggest cornerstone," I said. "To me the art, if you can call it that in this business, is to tie all the commercials together so that you still have a story that resembles the original scenario."

Bob shakes his head in agreement. "Right," he said. "When a fellow is shooting a scene in Gabby's Hardware store, it's pretty hard to convince him that there is any sense to holding a slate in front of a camera with some chalk scratching on the surface and that the business we shoot in his place of business could have any similarity to a story."

"You said it," I chime in. "If we shoot the commercial last on the shooting schedule he still thinks he'll be the last thing in the picture."

"And how about going into a location and finding the entire store from front door to storeroom spic and span; every box in place, mirrors shining, and every employee in new uniform. The boss comes up, waves his hand back and over his entire establishment and says: 'OK, bub, shoot away. We're ready'. . . and he only purchased twenty-five feet of film and all we can possibly shoot and keep to the scenario is small given areas with our own local cast," Bob said.

We both say nothing for a bit. Thoughts crowd around, things happen, and you wonder. I attempt another grin. "Seems funny to talk about it but it's a case for aspirin on location," I said. "Everything consistently happens to kick production in the pants. If we're on time for a commercial you can bet the non-paid cast won't show up. Mr. Big Hunk, for whom our leading man works, refuses to let the star off. He's mad because we didn't give him an exclusive on his grocery store. Therefore he aims to throw bolts and nuts into the machinery . . . and we shoot dairies with water running about like a broken Boulder Dam and our wet cables short and we all get a slug of electricity . . . and we montage neons in Milwaukee with the temperature at twenty below zero and the camera freezes and we freeze and we all end up with the sneezes . . ."

Bob waxes into the scene. ". . . . . and we have to shoot the big love-scene in a tavern because there is no other place available and then the leading team proceed to become giggly on laughing water . . . and when the picture is finally in the can, processed and returned, you stay up all night editing . . . cutting . . . editing."

"Yeah," I remind. "Remember south of here when you had the flu. The picture had to be ready for the next afternoon's matinee, so a couple of the committee kept you going all night. One trucked up hot coffee, the other shoved medicine in the nostrils with one hand and held Kleenex to the nose with the other . . . . ."

We both fell silent. The clock was shoving four A.M. to the rear and we still had to be on location at eight. Four hours away. Bob had dropped into a steady in-and-out wheeze and I wasn't far from the same portals. But I tried to compare our pasture with the skilled craftsman and the glittering walls of Hollywood's industry. Each has his or their own major obstacles to surmount. That's what makes motion pictures, amateur or professional, the greatest art in the world. Always the unknown ahead; always striving to surpass the last effort; always hoping for the big scene, and always disappointed at gaining so little of what you thought you were getting in it when you do shoot it. Bob has been in Hollywood; so have I. So we compare the two and find little difference in headaches—but so vast a difference in the ultimate results. Bob still slept, but I was groping around for a simile; something with which a chap could make a comparison with the motion picture craft. Then I thought of a passage I had read somewhere and which was supposed to have been uttered by an old Polynesian philosopher. He was talking about life, though; and I am thinking about the world of make-believe . . . make-believe . . . Life . . . there isn't much difference. Let's see, what did he say . . . ?

Something like this:

"The only answer to life is life. You are the mathematician—write it down and everything is solved. That is death but it shouldn't concern you . . ."

Well, amateur, professional or semi-pro, we strive for the same goal and that's good enough life for anyone . . . **END.**

Business Film Scripts

(Continued from Page 516)

film in a way that answers those questions for the audience.

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In doing this, the basic cinema technique of "establishing" long-shot, medium-shot and then close-up should always be observed. Too often in industrial films we see people doing things—in long- or medium-shots—and instinctively want the more detailed exposition of the action or process that a close-up affords—and the close-up isn't there. Put this definite progression into your script, and see to it, too, that it is followed in the shooting. If when the film is assembled, the closer shots seem repetitious—*to an inexpert preview audience*—they can always be eliminated. But they can't always be shot later when it is found they're needed.

Script-writer, director and cinematographer should combine their efforts to add visual imagination to their joint presentation of factory sequences. The cine-camera can be used in such sequences in a manner similar to that which has in recent years won Salon prominence for many industrial still-camera artists specializing in what I believe is called "industrial photographic impressionism." In almost every factor there are abundant subjects which recommend themselves photographically because of design, movement, disposition of mass, detail, and so on. Sometimes the spokes of a wheel, sometimes the pattern of building detail, the subjects of such shots are generally a more interesting part of a less interesting whole, and they can be composed with a feeling for eye-arresting composition.

Coupled with the flexibility of motion, such a photographic technique adapted to industrial movies can do much to add "oomph" by turning the usual into the unusual, without in any way lessening the truthfulness of the facts presented.

A good set of rules for building an effective factory sequence in a general audience picture is to begin with establishing long-shots, then work progressively closer to full close-ups of out-of-the-ordinary operations, making generous use of angle-shots and a very liberal sprinkling of close-ups of the always expressive hands of workmen. Edit these for an increasingly quick tempo, if possible coordinated with rhythmic music in the score. And keep away from highly technical terminology in the narration.

Stories are where you choose to find them. There is a lot of what the publicity-men call "romance" in the most commonplace things of life—the way foods find their way to your table—furniture to your room—the gasoline to your car—the pencil to your desk—the very cup and saucer to hold your breakfast coffee. The most simple, inexpensive article or ingredient has a story that is interesting, not always necessarily because of the way that thing is made, but because its evolution from idea to actuality concerns the lives of people; interesting because those people are different from ourselves during the time they are concerned in the evolution of that product, yet somehow close to us because that product eventually reaches us, for our personal use.

Dig out all these interesting facts about the business you're filming—facts about the personnel, as well as the methods used; the historic origins of the business or its product as, for example, the way our grandfathers called the tomato a "love apple" and considered it poisonous, while today it is a staple of vitamin-filled scientific diet.

Sometimes these incidental background facts may seem to the executive for whom you are making the picture to be very far-removed from proving his contention that his product is the best. But they aren't. We are all curious about what the other fellow does. Shots of men and women at work foster good-will by breaking down the feeling of impersonal remoteness between customer and company, and puts in its place a humanizing feeling that they are all "just folks" from the President down, doing a bang-up job on behalf of the audience and, more than incidentally today, contributing not a little to the national economic welfare by providing employment, paying taxes, payrolls, etc., and being good American citizens in every way.

Finally, make every effort to save the big sales plug (if there's got to be one!) till the end of the picture. And then make it brief. This makes for a better picture and, oddly enough, a stronger sales value because by that time the audience is more or less relaxed in its enjoyment of the picture, so that the plug catches them unawares and with the minimum of sales resistance. In this way the ends of both sponsor and producer are best served. And when this is done, and you've delivered your plug, obey the rules: retire to a neutral corner and bow out quickly and with whatever photographic artistry your skill and your subject offer, for your evening's work will be over.—END.

Glamorizing the Pea

(Continued from Page 518)

of machinery, in close-up. The most adequate lighting was provided by Victor No. 4 Photoflood lamps, with frosted aluminum bowls. A few spotlights were used at times to equalize the lighting—these were of the Reflector-type, 1500-Watt globe, with booster transformer for photoflood color-temperature and brilliance. Setting up such additional lighting apparatus for 16mm. work was complicated enough at times, but it was child's play compared to the manipulation of the heavy D-C powered arc equipment that would have been necessary for shooting in 35mm. color.

In photographing the interior of the plant, Dave Butler, Cameraman, had to resort to some rather ingenious methods. Platforms had to be hung from the ceiling, or suspended from ventilating pipes, and at one time, Butler almost had to stand on his head to get the particular shot he wanted.

A particularly difficult shot was that

taken of the inside of a huge, revolving drum, 60 feet deep, constructed of steel mesh. Chief problem was that of properly lighting the interior, and preventing undue reflection from opposite sides while the cylinder whirled rapidly. Lamps hung from the rafters provided light which shone through the sides; a Photoflood lamp hung at each end provided just the proper balance to carry the depth of focus. Such a shot could never have been made in the cramped space available by the larger, professional 35mm. camera.

Here, again, the flexibility of 16mm. equipment proved its distinct advantage both in economy and effectiveness. With the use of a wide-angle lens on the 16mm. camera, Dave Butler obtained a depth of focus embracing everything from three to 75 feet. The Hyper-Cinor attachment on the regular 1-inch lens gave him the equivalent of 12½m. objective.

Another particularly interesting feature of "Pick of the Pod" is the nature of sound-on-film work. The picture was shot double-system, with discs cut simultaneously for playback and protection. Re-recording was made after the final job had been edited and synchronized, as in Hollywood practice. High quality acetate and sound film were used for printing. All sound-film is direct positive, variable area sound track, recorded on reversal stock. Re-recording is made from that to another direct positive, reserved for printing on Kodachrome. No negatives are used, and there is only one printing operation. The dupe is just like the original. It may be spliced into the original without going out of focus.

The 16mm. recorder used is of Bill Palmer's own construction. He had just completed this apparatus back in 1933, when the San Francisco-Oakland bridge was under construction. Hired by the Columbia Steel Company to record the sound effects of the bridge construction, Palmer climbed out on the cat-walk, 500 feet above the water, and put his recorder in operation. At the same time, Peter Stackpole (now one of *Life's* leading photographers) shot motion pictures of the job, and later collaborated with Palmer on sound. The finished picture, shown by Columbia Steel at Treasure Island, is considered one of the first direct 16mm. sound-films made.

Palmer's sound-camera is primarily a sound recorder, but has incorporated in it a picture mechanism, so that it can be used for single system sound-and-picture-making if desired. As a recorder, it may make either direct positive or negative track in the optical system. The single system, however, is rarely used in regular commercial work because of the necessity for editing and synchronization. The camera itself is about the same weight and size as a 35mm. studio camera minus its blimp, and looks much like the Bell & Howell job. With the aid of this "tailor-made" mechanism, Palmer has made most effective use of sound. In "Pick of the Pod" there is offstage narration, music, and lip-synchronized dialogue—the latter somewhat rare in 16mm. commercials.

But the real significance of what Palmer and Butler, and scores of other 16mm. business-film specialists throughout the country are doing does not lie so much in any one picture, no matter how interesting or successful, but in the overall importance of their work as a whole. For it is due to the efforts of pioneers like them that 16mm. has become accepted as the ideal medium for the making of commercial movies. Each new assignment one of these men completes successfully provides additional proof of the amazing possibilities of direct-16mm. picture and sound technique in adaptability to adverse conditions, operational flexibility under the most widely-varying circumstances, superior economy and results, when 16mm. picture and sound are in skilled hands, fully equal to all but the major-studio best in 35mm. END.

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Amateur Recording

(Continued from Page 523)

Special in which he could use single-perforated sound-recording film. This summer he photographed two major events in the Twin Cities, the Eucharistic Congress in St. Paul, and the Minneapolis Aquatennial.

He kept track of the exact footage for each scene, and brought the film to me for sound recording. We worked out the narration, selected music which would point up the high spots, and recorded sound on two thousand feet of Kodachrome. All this was done before the film was developed.

When those reels, representing a considerable investment in time and money, were returned for us to see and hear, the internal excitement was something that each of us will long remember—like the moment when Alice was whisked into Wonderland.

The films of the Aquatennial and Eucharistic Congress emerged into sound pictures by careful planning on the part of the photographer, J. E. Lucius, and by transforming his scene and footage record into a word and music script timed to the second.

From newspaper stories and pictures, I gained a good idea of what his pictures included. When he had noted a parade scene featuring a drum corps, followed immediately by a brass band, drum corps music was faded out as band music faded in, and the result on the screen is that of direct sound recording on the spot.

Another sequence covered the Aqua Follies. In choosing music, I moved my arms through the air with about the same timing as a swimmer, and when I found music that would have the correct rhythm, it was scheduled for that point. The finished film shows the swimmers moving in exact time to the music.

Throughout the entire picture, the rhythm of the action had to be imagined, and the music chosen to be in step.

Perhaps those who have not gone through this process of "blind recording" do not seem to appreciate the screen effect, but I can tell you there is no thrill in movie-making greater than to blend story, music, excitement, and picture together as a unit on a dozen rolls of undeveloped film.

After editing, my friend had two films *with sound*, another amateur to desert silent films for sound.

One suggestion which might help E. M. Berndt to sell more Auricons to amateurs, is to supply owners of their equipment with frequent supplements to the original set of directions, amplifying on correct methods of recording, including suggestions for new ideas for sound-on-film, and discussing common mistakes and how to correct them. Users of the equipment need a specific service of this nature to guide them, as they do not have available any "idea exchange" such as the larger camera and film manufacturers can afford to maintain.

Since last November, just during spare time, seven films, totaling 3600 feet, have been completed, and another one is now in process. A few more films will be made by the method of post-recording, to gain needed experience, and then we'll plunge again—into lip-synchronized pictures. This will require an electric motor drive for my Special, a blimp case, and, more than likely, a *priority order* for materials—heaven help us!

And since the recreation room in the basement, now turned into a movie studio, doesn't have sufficient ceiling height, I'll have to apply acoustical paneling to the living-room, and expect occasional guests to wait on the front steps whenever the porchlight reads "Quiet please—sound recording in progress!" **END.**

In Old Quebec

(Continued from Page 525)

ell, weighs eighty pounds set up, and the battery to run it weighs another fifty pounds. It was much easier to get it down the hill than to take it up—or maybe with good shots in the bag the load just seemed lighter!

Carrying out the main theme of the reel once more, I decided to get a sequence on Village Life. This naturally opened with a long-shot showing the houses clustered around a sharp-spired church which reached high above the roof-tops. Then there were scenes down a fence-lined lane with a wayside shrine in view. A series of shots of simple farm folk going down the road and stopping at the shrine introduced the religious angle which can scarcely be left out of a reel on Quebec. Next we picked up some peaceful shots of two little girls sitting on a fence conversing seriously about a new doll, and lazy boys lying contentedly among flowers which swayed in the breeze. Close-ups of the flowers, some clouds overhead and wind in the trees used up the footage-limit of this sequence.

I found that I had pretty well covered life in this region during the early summer season but there was hardly enough material for a full reel. I had an ace up my sleeve so doubled back to the quaint city of Quebec and made the usual city sequence, searching for the most picturesque buildings, and covered them from the most effective pictorial angles. In the Province of Quebec nothing seems to fit the theme more perfectly than the city of Quebec itself, since Quebec is truly an old-world city built in an old-world style and it is sure to remain that way for many generations to come.

The Quebec city sequence was completed in two easy days of good shooting weather and with it finished I could feel that I had enough for the reel. Almost five thousand feet had been exposed, covering an introduction and seven different sequences. It took a little over three weeks but at least ten days were lost on account of bad weather. Usually a travelogue can be made in two weeks with advance arrangements and perfect weather but three weeks is allowable to keep you on the profit side of the line.

It is advisable to make a plan and try to stick to it. But it is good judgment to change when you find it is too difficult or takes too much time to get a planned sequence when you can find an easier substitute. This is good policy for the amateur and compulsory for the professional since travelogues are not big money-makers like an Abbott and Costello feature. Rather they are used as fill-ins on the theatre program, and like every commercial product they must be made economically if their production is to continue. **END.**

Color Temperature

(Continued from Page 527)

And there's another trick which can sometimes be worked: simply over-volt your standard globes enough to produce an effect similar to that which gives the regular Photofloods their added brightness and higher color temperature. Photofloods, you know, are essentially standard globes built to operate normally at around 90 volts, but actually burned at 115 or 120 volts. This makes them give a brighter, whiter light, but for a shorter burning life. You can do the same thing with ordinary globes, and get a comparable effect. You probably couldn't get 90-volt globes to fit your spotlights and Dinkies, but you can get 110-volt types; burn these at 120 volts, and you'll get almost Photoflood brilliance. If your current comes from a 110-volt circuit, you may find it worth while to get a "step-up" transformer to do this. Or you can get special lamps in many of these sizes, made for use on 32-volt circuits: rig your spotlights so that you burn three of these globes *in series*, and again you'll get almost Photoflood brilliance and color temperature. But remember—you'll be generating added heat, too, so your lamps will get hotter!

Occasionally it happens, too, that you may find yourself using an unusual number of lamps on a single circuit, or perhaps working at the end of an extra-long feeder-line; this can reduce the voltage getting to the individual lamps: and for each 5-volt drop, your lamps will not only lose brilliancy, but they'll drop about 100°K in color temperature. The cure for this is of course to divide your lighting load between two or more circuits, or to find some way of employing

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a shorter feeder line. Commercial 16mm. Kodachromers, especially those who have to work extensively in factories and industrial plants, will find it well worth their while to carry a voltmeter for measuring the potential at the point where they use their lights.

All of this is very nice and scientific, I can hear some readers saying: but is there any way I can get an accurate measure of the color temperature of my lighting and its effect on my Kodachrome? Luckily, there are two commercially available arrangements by which this may easily be done. The first of these is the Eastman Color Temperature Meter. This is a pocket-sized gadget by which you can accurately read the color temperature of any individual lamp or globe by simply matching the color of a fixed filter built into the meter to that of a variable one. When the two sections seen through the eyepiece match, you read off the color temperature of the lamp you're studying. From that, by means of corrective gelatin filters on the lamp (usually varying shades of blue) or by adjusting the voltage, if you are able to, you can make sure the color temperature of your lighting is all the same, and suited to your film.

The second is the well known Harrison Color Meter. With this, you simply look through the meter at a scene, twiddling the meter's knob until the whites in the field just commence to turn pinkish. Then you read what the meter's calibrations say, and place a correspondingly-numbered compensating filter over your lens. This will balance your Kodachrome to the color temperature of your lighting. Both systems, in properly careful hands, give excellent results. As a matter of fact, there seems no reason why they shouldn't be used together, as, for instance, using the color temperature meter to check individual lamps, and then using the color meter's compensating filters as a guide to choosing the right gelatin filter to correct the color temperature of that individual lamp to normal.

But in any event, when you're shooting Kodachrome indoors or out — but especially indoors—watch the color temperature of your lighting! It may seem like an added, troublesome detail, but it will repay you many times over in better results on the screen. END.

Golf Movie

(Continued from Page 529)

ing and the block letters making the husky hurdle from the ground right up to the precarious edge.

Another version of this same trick would be to set up the golf bag and a few clubs in the corner of a room beside a small table. Another golfer could be seated beside the table, probably engaged in inspecting a club or two. Try another reverse-action shot by inverting the camera and shooting the title-wording spelled out in block letters on the table top. As the footage is run off, have the golfer nonchalantly pick up each block letter, one by one, and toss it into the open golf bag. Reverse the processed scene end for end, and you will show the letters popping up out of the golf bag and being caught in midair by the golfer who arranges them neatly on the table. With experimentation, plenty of other variations are possible.

If your golfing scenes are sharply focused, you can build up an excellent collection of still shots by enlarging individual movie frames. In fact, stills rarely obtainable with a still camera can be made from movie frame blowups. For instance, by examining each frame in a putting sequence, you can enlarge only the one showing the ball hanging right on the lip, as illustrated in this article. By careful study of movie frames, you can balloon candid shots of golfing friends not otherwise so easily pictured.

The final touch, of course, is synchronizing the edited and titled golfing movie with music and sound, and this newest phase of the movie hobby has infinite possibilities. Music should fit the mood, and this can be discovered only by listening to numerous recordings in local shops or over radio. If you employ a microphone with your dual-turntable system, you can manufacture your own sounds and obtain perfect synchronization.

This is almost unbelievable until you hear it, but by tapping a microphone sharply with a wooden pencil in synchronization through your loudspeaker the identical sound-effect of the golfer's club hitting the ball. END.

Movie Clubs

(Continued from Page 532)

be screened the outstanding color travelogue of the year; a film made by the club's projectionist, Trumann Vlier. In addition the Washington 8mm. Club promises to project their most outstanding 8mm. reel of the year.

JOHN T. CHEDESTER,
President.

Contest for S. F. Cinema

The October meeting of the San Francisco Cinema Club was devoted exclusively to the showing of Contest Pictures by members. Among those contributing were Anthony Kleyn, Russell Hanlon, Charles Harvey and Russ Pettingill. 8mm. and 16mm. entries in Kodachrome and Black and White were screened. The only limitations being in the length of subjects which were limited to 200 feet for 8mm. and 400 feet for 16mm.

JOHN B. SMURR, President.

Third Birthday of Phila. 8-16

October marks the third anniversary of the Philadelphia 8-16 Club and George Burnwood recalls that the idea for the Club was born in Bill Rush's bathroom. For full particulars see the October issue of the Club publication, "Close-Ups." President Frank Heininger calls attention to the fact that the Club has passed through its growing pains and sees an opportunity for cooperative zealous amateurs to do great things with motion pictures.

Beginning Tuesday, October 7th, and slated for the first Tuesday in every following month, the Club held its first in a series of informal meetings. At these meetings no regular program is scheduled; instead, members will be able to participate in recording sessions, project their own reels of film and discuss among themselves their picture-making problems.

At the regular meeting members voted for the following nominees for Club

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offices; Bracken and Bornmann for President, Sobel, Heininger, Chalfin and Achillies for Vice-President; Brautigam for Secretary; Seib and Oetzel for Treasurer, and, Bauer, Burnwood, Mrs. Bornmann, Brown and Merrow for Directors. In oder to avoid losing the services of valuable members defeated for any one office, new election plans provide that losing members for one office shall automatically appear on the ballot for subsequent offices. This ruling shall not affect the offices of secretary and treasurer. Members were reminded that November is the month for the official "Gold Cup Contest."

LEE CHALFIN.

Utah's Summer Film Contest

The Summer Film Contest was the feature of the October meeting of the Utah Amateur Movie Club in Salt Lake City. 8mm. and 16mm. entries were judged by the members present for the three money prizes. F. K. Fulmer and Al Morton were also scheduled on the program for the evening. The greatly anticipated event for the November meeting will be the showing of Dr. Frazier's South Pole Pictures.

TED GUERTS, Secretary.

Tri-City Contest

The October Meeting of the Tri-City Cinema Club was held in Moline. After a short business session the following pictures were shown: "Illinois," a 200-foot subject in 16mm. by Elizabeth and Florence Roberts, annual contest first prize winner; "One Day in October," 180 feet of 8mm. by Adolf Gustafson, annual contest second prize winner; "The A B C Movie," 100-foot 8 mm. subject by Elizabeth and Florence Roberts, winner of the third prize in the annual contest; "Tooterville Special," a 125-foot subject in 8mm. Kodachrome, judged by the ACL as the best made on the Rockford (Illinois) Movie Club outing; "Tooterville," 200 feet of black-and-white, by Bob Jacobs, also made on the club outing, and "Flame," a 180-foot 8mm. subject with a musical accompaniment made by Tom Severs of Moline.

GEORGIA T. FIRST,
Secretary-Treasurer.

Aussies Active

Publication in THE AMERICAN CINEMATOGRAPHER some months ago of an article on 16mm. micro-cinematography has started a considerable wave of interest in micro-filming by both medical and lay members of the Australian Amateur Cine Society and other Australian filming groups. One of these members, Mr. W. E. Hamilton, A.A.C.S., who has specialized in micro-moviemaking, was recently invited by the Lecture Service Division of Kodak, Ltd., to give a lecture on "Movie Making through the Microscope" in Central Hall, Newcastle, accompanying it with showings of his films. Later, by special request of Newcastle members of the medical profession, Mr. Hamilton staged a special showing of certain of his films of special medical interest to an audience of doctors and nurses.

The two July meetings of the Australian Amateur Cine Club, Sydney, included a Cine Quiz and a programme of silent films on July 7th, and on July 21st, a talk by Messrs. R. Lowe and Rex Sharp on "Projection of a Home Movie Show," followed by a programme of sound films.

The Victorian Amateur Cine Society, Melbourne, recently screened a programme of films loaned by the A.A.C.S. and later previewed their Club's own production, "The Man Who Came Around." In filming this picture an interesting technical situation came around, as two interior settings were required and had to be lit to suit the requirements of members using many different types of cameras and film. Lighting these sets to permit exposures by the slowest lenses and film, 5,000 Watts of photographic flood-lights were used, providing enough light so that users of super-fast film like Super-XX exposed at *f*:8. As these interior scenes were numerous, requiring over 130 feet of 16mm. film, it had been planned to consume two nights in filming, but the whole of the interior scenes were filmed on the first night's shooting.

At a recent meeting of the Adelaide Filmo Club Mr. P. Moody, Patron of the Club, gave an interesting demonstration of rear projection. He used a 30x40-inch translucent glass screen, and projected from behind the curtains on the stage onto a mirror and thence to the screen. The films were first shown with the lights in the hall on, and lights on the stage off; the picture was very brilliant even with the lights on, and there was no eye-strain. When the house lights were switched off, the picture took on a slightly more brilliant aspect, and it was quite obvious that there was more eye-strain in the darkness.

JAMES A. SHERLOCK,
Publicity Officer, A.A.C.S.

Meters, Sound for Philly

The Philadelphia Cinema Club had as their guest speaker at the October meeting Mr. W. A. Reedy of the Weston Electric Instrument Corporation who gave an illustrated talk on the various recommended methods of using exposure-meters for both black-and-white and color. George Pitman showed his film, "A Night in Florida." A fine picture well synchronized with sound and commentation. Another feature of the evening was the screening of the sound-on-film picture, "America Marches On."

WILLIAM BRINK, Secretary.

Title, Edit at Minneapolis Meeting

The feature of the October meeting of the Minneapolis Cine Club was the titling, editing and then projection of Dr. Harvey Nelson's film following the advice and criticism received at the September meeting. Also on the program was a new opus by Ray Rieschl entitled, "That's An Idea." The picture concerns the making of a float for the Aquatennial last summer and is packed with ideas. There were also some excellent educational discussions worked out and presented by the program committee under the Anderson-Nelson combination. Announcement was made that the 8mm. contest had been postponed till January with December 1, the deadline for contestants.

ROME A. RIEBETH.

Long Beach Cinema Elects

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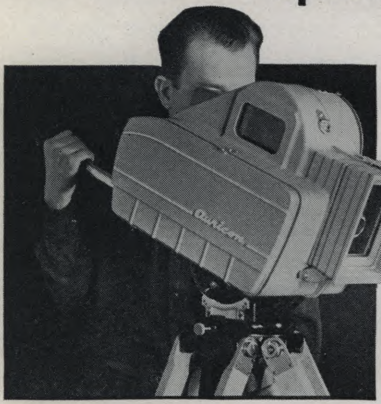

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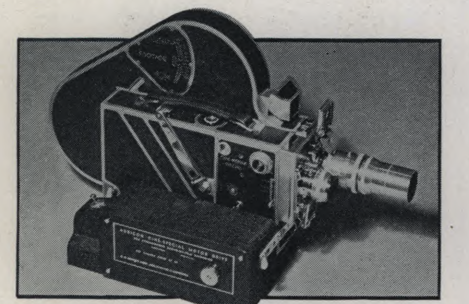

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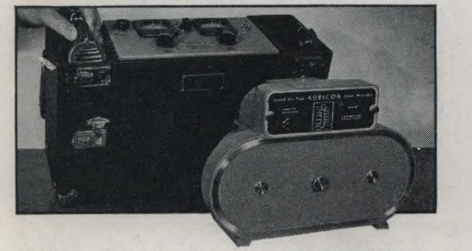

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President Mildred Caldwell exhibited her Kodachrome picture with synchronized sound, "Song of Old Hawaii." Beautiful Hawaiian scenery was used to give the native interpretation to the traditional movements of the Hawaiian dancer as she moved in the rhythms of the graceful Hula. Also screened were, "Ten Pretty Girls" by A. O. Jensen of Seattle, "Vacation" by Ellen Thunnell and Carl E. Weldin's rushes on the launching of the Alcoa Polaris. Clarence Aldrich showed "Pass the Corn" and gave a talk on "What Not to Do" aided by a picture of odds and ends.

Officers for the coming year were elected at the October 15th meeting. Robin L. Hadley was elected President, Dr. Franz Buerger, Vice-president, Harry Ward, Jr., 2nd Vice-President, Prudence Bracklow, Secretary, and Mrs. V. P. Whitely, Treasurer. Val Pope was appointed Projectionist and Earl Everly, Sergeant-at-Arms. The retiring president and secretary were automatically placed on the Board of Directors for the coming year. Highlight of the meeting was the showing of Paul J. White's 2000-foot Kodachrome film, "Mexico." "Climbing Tooth Mountain" was sent down from Hollywood for screening, and Dr. Brook's film on the launching of the Alcoa Polaris was shown with special sound effects by Columbia.

RAY FOSHOLDT,
Secretary-Treasurer.

Colorado Springs Elects

The newly-organized Colorado Springs (Col.) Cinema Club, at its October meeting, elected the Club's first slate of regular officers. Chosen to serve a term of one year were Earl Cochran, President; John G. Weinzinger, Vice-president, and Roy L. Thomas, Secretary-Treasurer.

A Committee was appointed by the President to submit an idea for a club film that can be used to exchange with other cinema clubs. Suggestions were offered to the Committee that the film be a picture showing the Pike's Peak region and the attractions there offered to camera fans. The committee included Mrs. Thomas, Mr. Douglas and Mr. Beardsley. It was also voted to hold only one meeting during November, with this one to be on Nov. 17th, at which time members will compete in an uncut-film contest.

Screen features of the evening included a 16 mm. film entitled "Gold," a picturization of a trip through a gold smelting plant filmed by Reverend Luce, and Vice-President Weinzinger's 8mm. film of Yellowstone Park.

EARL COCHRAN, President.

Hotel Camera-Club

Travelling photographers and movie-makers who stop in Chicago will be the recipients of special attention if they stop at Chicago's Stevens Hotel. This enterprising hostelry has recently opened what is said to be the first camera-club in the United States operated exclusively for hotel guests. Use of the club's facilities is offered without charge, according to Joseph P. Binns, General Manager, who said the club will be an integral part of the Stevens' service to its guests. A skilled professional photographer has been placed in charge and will aid all those who need assistance.

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The new club is the idea of hotel-manager Binns, a photographer himself, who decided that hotels in general did not pay enough attention to photographers and proceeded to see to it that his hotel, at least, would. "There are 20,000,000 camera-owners in the U.S.A.," he says. "A great many of them travel and will be in need of special photographic facilities while they are away from their own darkrooms, projectors, etc. I know I have often wished for such a set-up while travelling. The new Stevens camera club will fill that need in Chicago, and it is our hope that other hotels in other cities will follow suit."

Snow Movies

(Continued from Page 530)

lamp. If you're short on such civilized conveniences, you can do what I did down in Little America—place the camera (but not the film!) in the oven of a cook-stove. When you return from the outside air to warmer room temperatures, camera and lens will "sweat" as the moisture in the warmer air condenses on the cold metal and glass parts. This will continue until the camera is at the same temperature as the room. Before taking any interior scenes, all equipment, including the lens, should be carefully dried.

If you are on a camping trip, it is a very good idea to keep the camera and film outside all the time, of course in a safe container. I kept my cameras at Little America outside at all times, except when I had to make interior scenes or overhaul the cameras. For this, I had special canvas bags, made so they would slip completely over the camera and tie around the tripod-legs to keep out the snow.

Another thing—if you are working in extreme cold temperatures you'll find it a very good idea to wear silk gloves. They may not be so warm, but they'll give you almost the same freedom you'd have working with bare hands, and save you the painful experience of having your fingers stick to the cold metal of the camera and come away leaving an inch or so of your skin stuck to the camera! END.

RCA For MPA

RCA Photophone film sound recording equipment has been purchased by the Motion Picture Advertising Service for use in their New Orleans Studios.

Ernie Palmer

(Continued from Page 519)

lighting equipment, electrical crew and laboratory-changes, they make no other concessions to the traditional 'difficulty' of Technicolor. They give us exactly the same shooting-schedule as if we were working in black-and-white. We manage to adhere to those schedules, and sometimes even improve on them!

"As far as my own work goes, I find there's a definite advantage to utilizing substantially normal black-and-white lighting techniques in color. In some instances, the fact of color and color-contrast helps us get pictorial effects and separation of planes without going to some of the trouble we'd go to in getting comparable effects in monochrome. But in general, good lighting is good lighting, whether you do it in black-and-white or in color.

"The chief difference is in the color and intensity of the lighting. Naturally for Technicolor you must use light conforming to the daylight-white standard if you want normal results, though nowdays you can make almost equal use of arcs or inkies as occasion may demand. And you still have to light Technicolor at a rather higher level than black-and-white.

"But there's no longer any such thing as getting 'typed' on color. In between my Technicolor assignments, I've made several black-and-white pictures; my next after "Song of the Islands" will probably be in black-and-white, too. And neither the studio executives nor I have found any reason for thinking my work in color has hurt my ability to photograph good black-and-white. As a matter of fact, just before I took on this Technicolor assignment, I filled in several days on added scenes on a black-and-white picture. And I found that, due to the system of using light-meters inaugurated here by Supervisor of Photography Dan Clark, A.S.C., about the only change that was necessary was to reduce the intensity of my lighting. That, using the meter, was of course easy. And I found that with that change, I could carry on equally well re-

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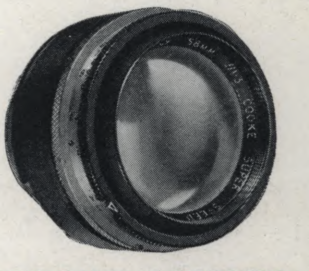

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gardless of whether I was using color or monochrome.

"And—here's something: one of these days, when I get a bit more time between studio assignments, do you know what I think I'll do for a hobby? I'm going to get myself a 16mm. camera—and shoot home movies in Kodachrome! END.

Scenario

(Continued from Page 528)

you use a roll of positive for this shot!)

Scene 39: Close shot of Joe. His eyes slowly turn up and he falls backward out of the picture, completely overcome. **FADE OUT.**

Title: THE END.

Idea Exchange

(Continued from Page 537)

duced an interesting interplay of light coming through the transparent letters of the title. Shooting in color, you could have the front of the title painted in colors, or a colored picture with cut-out letters, and use the same idea, of course having the light on the drum stronger than the light on the front of the title.

STUART McCLELLAN.

Photography of the Month

(Continued from Page 522)

down while filming some of these scenes. It is too high a price to pay for mere entertainment.

The direction seemed to miss in many points and, frankly, we could wish, for the sake of our relations with British audiences, that the "Yank" had been presented as a more representative American than the ingratiating heel portrayed in this picture.

THE MALTESE FALCON

Warner Bros.-First National Production. Director of Photography: **Arthur Edeson, A.S.C.**

"The Maltese Falcon" is an unusually interesting picture. If you can detach yourself from its fast-moving melodrama (no mean feat, by the way) you'll discover that its cinetechnical interest is at least as great as the dramatic. It is one of the first films to point the way to a successful adaptation of the "Citizen Kane" photographic technique to more routine production. Much of the "Kane" technique has been retained: there is strikingly similar depth and crispness, the use of wide-angle lenses and roofed-in sets, not done just occasionally, when somebody thought of it, but throughout the picture, as an integral part of the production. Both director of photography Edeson and director Huston have done very well with it, too.

The note of realism dominates. There is far less of the conventionally melodramatic effect-lighting of the usual "whodunit," and a surprising lot of the realism of a documentary. The use of the increased-depth technique adds noticeably to this impression, even though at times the distorting effect of wide-angle lenses is somewhat apparent. However, Edeson has handled this phase of the picture with remarkable skill, for this distortion is not nearly so noticeable as it has been in many another picture.

To this writer's mind, somewhat excessive use was made of the trick of shooting up from comparatively low camera-angles on roofed-in sets. It is always a good trick when the action calls for it; but while it was at times used legitimately in this picture, it was rather more frequently used strictly for effect, and when there is no bona-fide reason for such an angle, the dramatic continuity of a film is a good deal the better if such tricks are avoided.

Edeson's handling of the sets themselves was excellent. Some of the sets were distinctly drab affairs, representing unspectacular offices, apartments, and the like, such as may be found plentifully in San Francisco. Both the sets themselves and Edeson's treatment of them added markedly to the realism of the picture, and Edeson is to be congratulated on the way he has used them, avoiding the usual photographic clichés, and stressing the note of drab reality. His handling of the ship-fire sequence is very effective. So, too, is the way he has handled the backings: so often the weak point in a picture, he has contrived to make them look like real backgrounds, rather than obvious backings.

An interesting sidelight on the production is the fact that the wide-angle lens used is not the conventional 24mm. objective so generally used, but a special 21mm. lens which is part of the cinematographer's personal equipment.

BRITISH COLUMBIA SPORTS

Produced by Vancouver Motion Pictures; Released by Columbia (Cinecolor). Director of Photography: **Ray Fernstrom, A.S.C.**

We don't often have either the space nor the occasion to comment here on short-subjects. But "British Columbia Sports" is an exceptional short-subject. From start to finish it is one of the finest examples of camera-pictorialism on exterior scenes that we've ever seen, yet at the same time it is entertaining and fast-moving. Restricted by the inevitable limitations of any two-color process of cinematography, the reel is none the less an example of uncommonly good color-photography. Director of photography Fernstrom certainly has very few equals in handling bipack, and knowing how to choose subjects which will be effective in spite of the system's technical limitations. The Cinecolor laboratory has returned the compliment by providing him with an excellent two-color print.

Virtually every scene in the film's regrettably short length (we could have stood an additional reel of it) is worth study as an example of fine pictorial handling of exterior scenes. Fernstrom's skill in keeping things stepping along briskly is excellent, too. Both the action and in many scenes, the camera, as well, keep constantly moving. There is hardly a static frame in the whole reel.

ARMY CHAMPIONS

Metro-Goldwyn-Mayer short-subject. Directed and photographed by **Paul Vogel, A.S.C.**

Apparently MGM shorts producer Pete Smith, when he got the idea for this interesting little reel, called in director of photography Vogel, and turned him loose with instructions to bring back a picture on team-work in Uncle Sam's Army. In doing so, Producer Smith certainly picked a winner, both in subject-matter and in the man he chose to handle it. From every viewpoint, Director-Photographer Vogel has done a fine job. Photographically, the picture is excellent, despite the fact that

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many of its scenes must have been gotten on the fly, when Army units in the field had time to lend themselves to picture-making. On the other side of Vogel's two-sided job, he has performed equally well. The action, ranging from the infantryman firing his Garand rifle up to the Coast Artillery sinking a ship with the mighty 14-inch railway rifles, is excellently directed, and shown in clear, fast-moving detail. The use of trick optical-printed effects to point out special features of the action is very clever. By all means mark this down as one short to go on your "must see" list.

AT THE STROKE OF TWELVE

Warner Bros.-Vitaphone short subject.
Director of Photography: **Ted McCord, A.S.C.**

Here's a little dramatic short, made from a Damon Runyon story, which could very easily have been built into a full-length feature. It certainly boasts feature-quality photography from Ted McCord, A.S.C., which would have won him high acclaim had it been released in feature form. It is as nice an example of low-key, effect-lighted dramatic cinematography as we've seen in quite some time.

The picture deserves additional praise—and study—as an exceptional example of fast-paced direction and cutting. From the opening scene to the closing title it maintains a tempo all too seldom seen in these days of slow-paced over-padded features.

DOWN MEXICO WAY

Republic Picture.
Director of Photography: **Jack Marta.**

The rise of stars like Gene Autry has brought a definite change in the business of photographing "westerns." Time was (not so many years ago) when if you were a past-master at composition and filtering of exterior scenes, you were likely to be an "ace" at filming "westerns." But today you must add to that a talent for keeping things photographically interesting while the star does his stuff with guitar and vocal cords, and even occasionally handle a "production number" or two.

Bringing this latest Gene Autry picture to the screen, Jack Marta does a very capable job on all counts. His handling of the exteriors is excellent, even though in a sequence or two the weather-man didn't favor him any too much. His treatment of the inevitable song-sequences is pleasing, though in some it appeared to us he might have used a trace more contrast and a trifle less diffusion. His treatment of the several important interior scenes in the office of the promoters and the home of the wealthy Mexican gentleman, is excellent, while his handling of the fiesta sequence makes this quite the photographic highlight of the film, even though Mexican audiences may raise their eyebrows at the sudden appearance of a floating garden reminiscent of Xochimilco in a village which is but a short pistol-shot away from typical "sagebrusher" rock-and-cactus desert.

In our estimation the only really weak point in Marta's handling of the film was in his treatment of the several night-effect sequences. In these, face-tones suffered somewhat, though the pictorial effect was excellent. The uncredited process work was excellent throughout.

HENRY ALDRICH FOR PRESIDENT

Paramount Production.
Director of Photography: **John Mescall, A.S.C.**
Transparency Process Photography: **Farciot Edouart, A.S.C.**

Working within severe limitations of budget and schedule, director of photography John Mescall, A.S.C., has turned out a surprisingly creditable job. No one expects outstanding photography on a picture like this, where time permits only the strictest "formula" setups and lightings, but throughout Mescall manages to get a little more out of each scene that would be expected. His handling of the night-effect scene in "Henry's" front porch, where he is persuaded to run for President, is particularly pleasing. Fortunately, too, the majority of his players were young and camera-proof, lightening his task of personal lighting perceptibly.

The outstanding technical feature of the film is without doubt the sequence in which young "Henry" finds himself forced to take off and fly an airplane (complete with nervous and highly reluctant passenger)—even though he has only the faintest idea how to land it again. This is really a triumph for the special-process forces—Gordon Jennings, A.S.C., on special-effects, and Farciot Edouart, A.S.C., on the trans-

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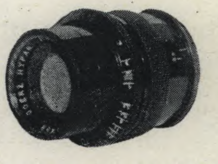

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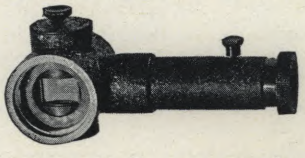

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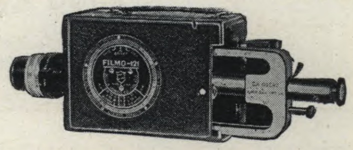

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parency projection process work. It is much to the discredit of Producer Sol Siegel and the other Paramount executives that these men did not receive screen credit, for they certainly provided the most uproarious individual sequence of the entire picture. Edouart's projection-process work is particularly outstanding. There are some scenes—notably those in which "Mr. McCloskey" falls out of the plane and back into it again, which absolutely could not have been filmed without the special equipment and methods Edouart developed for filming the air scenes in "I Wanted Wings." We'd like to suggest to the gentlemen who denied Edouart and Jennings screen credit for their achievements that they take their script to any of several other studios we could name—and see for themselves how much special planning, trouble and equipment other process experts would take to turn out the scenes these producers valued so lightly!

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933

Of The American Cinematographer, published Monthly at Los Angeles, California, for October 1st, 1941.

State of California } ss.
County of Los Angeles }

Before me, a Notary Public in and for the State and county aforesaid, personally appeared William Stull, who, having been duly sworn according to law, deposes and says that he is the Editor of the AMERICAN CINEMATOGRAPHER and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537. Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, A.S.C. Agency, Inc., 1782 No. Orange Drive, Hollywood, Calif.; Editor, William Stull, 1782 No. Orange Drive, Hollywood, Calif.; Managing Editor, William Stull, 1782 No. Orange Drive, Hollywood, Calif.; Business Manager, Marguerite Duerr, 1782 No. Orange Drive, Hollywood, Calif.

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5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above is.... (This information is required from daily publications only.)

(Signed) WILLIAM STULL,
Editor.

Sworn to and subscribed before me this 15th day of October, 1941.

(Seal) M. R. DAVIS.
(My commission expires February 27, 1944.)

Showcase

(Continued from Page 536)

Film Libraries, are listed.

Every effort has been put forth to make this film source directory virtually a bibliography of information on films, where to locate them and how to use them. It will be helpful to teachers, to the business man, to the pastor, to the individual in the home, to CCC camps and other governmental departments, in fact, every 16mm. film user. The price is 50c. Address your request, accompanied by remittance, to Directory Editor, Victor Animatograph Corporation, Davenport, Iowa.

Univex Film Made in U.S.A.

A speed-up in deliveries of UniveX films, now marked "Made in U.S.A." has just started with the completion of America's newest film plant according to an announcement from the Universal Camera Corporation of New York City. Situated at Williamstown, Massachusetts, this new modern factory will manufacture UniveX sensitized products, which were formerly produced in Belgium.

Air Corps Buys DeJur Meters

The United States Army Air Corps has placed a $24,660.90 order for "Critic" Model 40 Exposure Meters with the DeJur-Amsco Corp., Shelton, Conn. According to Sales Manager Kuscher of DeJur-Amsco, the meters will be delivered to the various departments of the Army's Air Service, where they will play an important part in both aerial and ground camerawork.

Television Newsreel

The first specially-edited television newsreel in this country is being produced by Photo & Sound, Inc., 16mm. commercial-film studios of San Francisco, in conjunction with the Telenews Theatres Company. The first release features scenes of the defense of Leningrad and a special commentary on Russia by Walter Duranty, the latest football forecast by Dick Hyland, a spectacular auto-crash at the Oakland (Cal.) speedway, pictures of the California State Guard and a picture-story on Cleveland, Ohio, as one of the nation's important defense centers. Editing is by Jack Tobin of Telenews and Andy Potter of Photo & Sound.

If there is an indication that the video industry can sustain a weekly release of this nature at present, production will go on a regular basis. The current first release uses public domain music and will be sent as a sample to all television stations now in operation.

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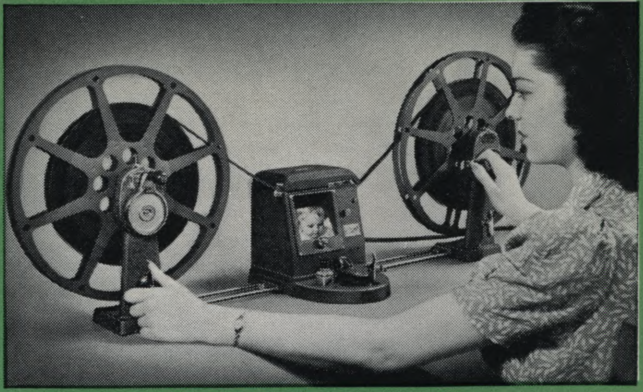

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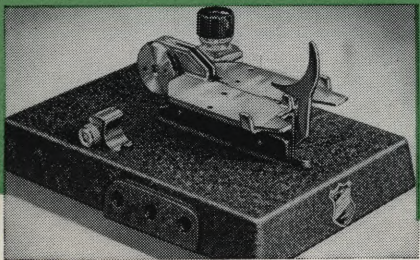

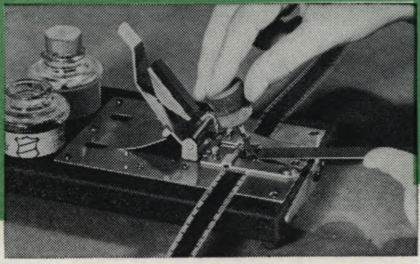

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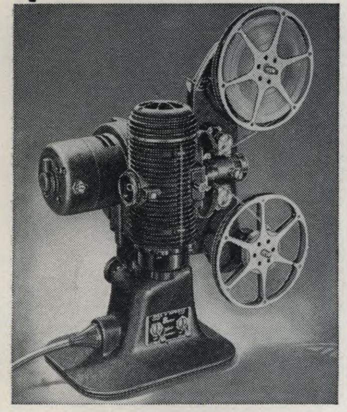

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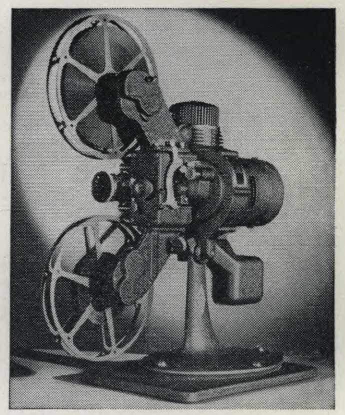

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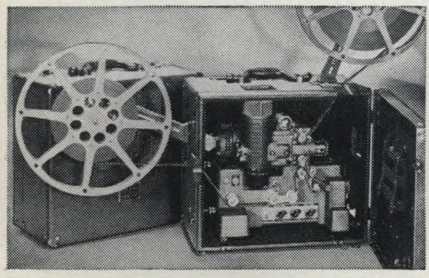

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